Mathematica 11.3 Integration Test Results

Test results for the 34 problems in "4.1.4.2 (a+b sin)^m (c+d sin)^n (A+B sin+C sin^2).m"

Problem 1: Result unnecessarily involves complex numbers and more than twice size of optimal antiderivative.

$$\int (a + a \sin[e + f x])^m (c - c \sin[e + f x])^{5/2} (A + C \sin[e + f x]^2) \, dx$$

Optimal (type 3, 384 leaves, 5 steps):

$$\frac{64 c^3 \left(C \left(39 - 16 m + 4 m^2\right) + A \left(63 + 32 m + 4 m^2\right)\right) \cos[e + f x] (a + a \sin[e + f x])^m}{f (5 + 2 m) (7 + 2 m) (9 + 2 m) \left(3 + 8 m + 4 m^2\right) \sqrt{c - c \sin[e + f x]}} +$$

$$\frac{16 c^2 \left(C \left(39 - 16 m + 4 m^2\right) + A \left(63 + 32 m + 4 m^2\right)\right) \cos[e + f x] (a + a \sin[e + f x])^m \sqrt{c - c \sin[e + f x]}}{f (7 + 2 m) (9 + 2 m) \left(15 + 16 m + 4 m^2\right)} +$$

$$\frac{2 c \left(C \left(39 - 16 m + 4 m^2\right) + A \left(63 + 32 m + 4 m^2\right)\right) \cos[e + f x] (a + a \sin[e + f x])^m (c - c \sin[e + f x])^{3/2}}{f (5 + 2 m) (7 + 2 m) (9 + 2 m)} -$$

$$\frac{4 C (1 + 2 m) \cos[e + f x] (a + a \sin[e + f x])^m (c - c \sin[e + f x])^{5/2}}{f (7 + 2 m) (9 + 2 m)} +$$

$$\frac{2 C \cos[e + f x] (a + a \sin[e + f x])^m (c - c \sin[e + f x])^{7/2}}{c f (9 + 2 m)}$$

Result (type 3, 899 leaves):

$$\frac{1}{f\left(\cos\left[\frac{1}{2}(e+fx)\right]-\sin\left[\frac{1}{2}(e+fx)\right]\right)^5}(a(1+\sin[e+fx]))^m(c-c\sin[e+fx])^{5/2}$$
$$\left(\left((18900A+12285C+15648Am+648Cm+5280Am^2+1416Cm^2+896Am^3+224Cm^3+64Am^4+16Cm^4)\left(\left(\frac{1}{8}+\frac{i}{8}\right)\cos\left[\frac{1}{2}(e+fx)\right]+\left(\frac{1}{8}-\frac{i}{8}\right)\sin\left[\frac{1}{2}(e+fx)\right]\right)\right)\Big/((1+2m)(3+2m)(5+2m)(7+2m)(9+2m))+\right.$$
$$\left(\left(18900A+12285C+15648Am+648Cm+5280Am^2+1416Cm^2+896Am^3+224Cm^3+64Am^4+16Cm^4\right)\left(\left(\frac{1}{8}-\frac{i}{8}\right)\cos\left[\frac{1}{2}(e+fx)\right]+\left(\frac{1}{8}+\frac{i}{8}\right)\sin\left[\frac{1}{2}(e+fx)\right]\right)\right)\Big/((1+2m)(3+2m)(5+2m)(7+2m)(9+2m))+$$
$$\left(\left(1575A+1575C+1178Am+414Cm+292Am^2+100Cm^2+24Am^3+8Cm^3\right)\left(\left(\frac{1}{4}-\frac{i}{4}\right)\cos\left[\frac{3}{2}(e+fx)\right]-\left(\frac{1}{4}+\frac{i}{4}\right)\sin\left[\frac{3}{2}(e+fx)\right]\right)\right)\Big/((3+2m)(5+2m)(7+2m)(9+2m))+$$
$$\left(\left(1575A+1575C+1178Am+414Cm+292Am^2+100Cm^2+24Am^3+8Cm^3\right)\left(\left(\frac{1}{4}+\frac{i}{4}\right)\cos\left[\frac{3}{2}(e+fx)\right]-\left(\frac{1}{4}-\frac{i}{4}\right)\sin\left[\frac{3}{2}(e+fx)\right]\right)\right)\Big/((3+2m)(5+2m)(7+2m)(9+2m))+\left(\left(63A+189C+32Am+44Cm+4Am^2+4Cm^2\right)\left(\left(-\frac{1}{4}+\frac{i}{4}\right)\cos\left[\frac{5}{2}(e+fx)\right]-\left(\frac{1}{4}+\frac{i}{4}\right)\sin\left[\frac{5}{2}(e+fx)\right]\right)\right)\Big/((5+2m)(7+2m)(9+2m))+\left(\left(63A+189C+32Am+44Cm+4Am^2+4Cm^2\right)\left(\left(-\frac{1}{4}-\frac{i}{4}\right)\cos\left[\frac{5}{2}(e+fx)\right]-\left(\frac{1}{4}-\frac{i}{4}\right)\sin\left[\frac{5}{2}(e+fx)\right]\right)\right)\Big/((5+2m)(7+2m)(9+2m))+$$
$$\frac{(15+2m)\left(\left(-\frac{3}{16}-\frac{3i}{16}\right)C\cos\left[\frac{7}{2}(e+fx)\right]+\left(\frac{3}{16}-\frac{3i}{16}\right)C\sin\left[\frac{7}{2}(e+fx)\right]\right)}{(7+2m)(9+2m)}+$$
$$\frac{(15+2m)\left(\left(-\frac{3}{16}+\frac{3i}{16}\right)C\cos\left[\frac{7}{2}(e+fx)\right]+\left(\frac{3}{16}+\frac{3i}{16}\right)C\sin\left[\frac{7}{2}(e+fx)\right]\right)}{(7+2m)(9+2m)}+$$
$$\frac{\left(\frac{1}{16}+\frac{i}{16}\right)C\cos\left[\frac{9}{2}(e+fx)\right]+\left(\frac{1}{16}-\frac{i}{16}\right)C\sin\left[\frac{9}{2}(e+fx)\right]}{9+2m}+$$
$$\left.\frac{\left(\frac{1}{16}-\frac{i}{16}\right)C\cos\left[\frac{9}{2}(e+fx)\right]+\left(\frac{1}{16}+\frac{i}{16}\right)C\sin\left[\frac{9}{2}(e+fx)\right]}{9+2m}\right)$$

Problem 4: Attempted integration timed out after 120 seconds.

$$\int \frac{(a+a\,\text{Sin}[e+f\,x])^m\,(A+C\,\text{Sin}[e+f\,x]^2)}{\sqrt{c-c\,\text{Sin}[e+f\,x]}}\,dx$$

Optimal (type 5, 123 leaves, 4 steps):

$$\frac{(A+C)\,\text{Cos}[e+f\,x]\,\text{Hypergeometric2F1}\left[1,\,\frac{1}{2}+m,\,\frac{3}{2}+m,\,\frac{1}{2}\,(1+\text{Sin}[e+f\,x])\right]\,(a+a\,\text{Sin}[e+f\,x])^m}{f\,(1+2\,m)\,\sqrt{c-c\,\text{Sin}[e+f\,x]}}-$$

$$\frac{2\,C\,\text{Cos}[e+f\,x]\,(a+a\,\text{Sin}[e+f\,x])^{1+m}}{a\,f\,(3+2\,m)\,\sqrt{c-c\,\text{Sin}[e+f\,x]}}$$

Result (type 1, 1 leaves):

???

Problem 5: Result unnecessarily involves higher level functions and more than twice size of optimal antiderivative.

$$\int \frac{(a+a\,\text{Sin}[e+f\,x])^m\,(A+C\,\text{Sin}[e+f\,x]^2)}{(c-c\,\text{Sin}[e+f\,x])^{3/2}}\,dx$$

Optimal (type 5, 202 leaves, 5 steps):

$$\frac{(A+C)\,\text{Cos}[e+f\,x]\,(a+a\,\text{Sin}[e+f\,x])^{1+m}}{4\,a\,f\,(c-c\,\text{Sin}[e+f\,x])^{3/2}}+$$

$$\frac{(A+2\,A\,m+C\,(9+2\,m))\,\text{Cos}[e+f\,x]\,(a+a\,\text{Sin}[e+f\,x])^m}{4\,c\,f\,(1+2\,m)\,\sqrt{c-c\,\text{Sin}[e+f\,x]}}+$$

$$\left((A\,(1-2\,m)-C\,(7+2\,m))\,\text{Cos}[e+f\,x]\,\text{Hypergeometric2F1}\left[1,\,\frac{1}{2}+m,\,\frac{3}{2}+m,\,\frac{1}{2}\,(1+\text{Sin}[e+f\,x])\right]\right.$$

$$\left.(a+a\,\text{Sin}[e+f\,x])^m\right)\Big/\left(4\,c\,f\,(1+2\,m)\,\sqrt{c-c\,\text{Sin}[e+f\,x]}\right)$$

Result (type 6, 16 031 leaves):

$$-\left(\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{-2\,m}\left(\text{Cos}\left[\frac{1}{2}\,(e+f\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(e+f\,x)\right]\right)^3\right.\right.$$

$$(a+a\,\text{Sin}[e+f\,x])^m\left(-\frac{2\,A\,\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{2\,m}}{\left(\text{Cos}\left[\frac{\pi}{4}+\frac{1}{2}\left(e-\frac{\pi}{2}+f\,x\right)\right]-\text{Sin}\left[\frac{\pi}{4}+\frac{1}{2}\left(e-\frac{\pi}{2}+f\,x\right)\right]\right)^3}-\right.$$

$$\left.\left.\frac{C\,\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{2\,m}}{\left(\text{Cos}\left[\frac{\pi}{4}+\frac{1}{2}\left(e-\frac{\pi}{2}+f\,x\right)\right]-\text{Sin}\left[\frac{\pi}{4}+\frac{1}{2}\left(e-\frac{\pi}{2}+f\,x\right)\right]\right)^3}-\right.\right.$$

$$\frac{C\,\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{2m}\text{Cos}\left[2\left(-e+\frac{\pi}{2}-f\,x\right)\right]}{\left(\text{Cos}\left[\frac{\pi}{4}+\frac{1}{2}\left(e-\frac{\pi}{2}+f\,x\right)\right]-\text{Sin}\left[\frac{\pi}{4}+\frac{1}{2}\left(e-\frac{\pi}{2}+f\,x\right)\right]\right)^3}\left(\frac{1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}\right)^{2m}$$

$$\left(-\left(\left(A\,\text{AppellF1}\left[1,\,-2m,\,2m,\,2,\,\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\right)\Big/\right.\right.$$

$$\left(-m\left(\text{AppellF1}\left[2,\,1-2m,\,2m,\,3,\,\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.\right.$$

$$\left.\left.\left.-\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]+\text{AppellF1}\left[2,\,-2m,\,1+2m,\,3,\right.\right.\right.$$

$$\left.\left.\left.\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\right)+\text{AppellF1}\left[1,\,-2m,\,2m,\,2,\right.\right.$$

$$\left.\left.\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\Big)-$$

$$\left(C\,\text{AppellF1}\left[1,\,-2m,\,2m,\,2,\,\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\right)\Big/$$

$$\left(-m\left(\text{AppellF1}\left[2,\,1-2m,\,2m,\,3,\,\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]+\right.\right.$$

$$\left.\left.\text{AppellF1}\left[2,\,-2m,\,1+2m,\,3,\,\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\right)+\right.$$

$$\left.\text{AppellF1}\left[1,\,-2m,\,2m,\,2,\,\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\right.$$

$$\left.\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)+$$

$$\left(A\,\text{AppellF1}\left[1,\,-2m,\,2m,\,2,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\right.$$

$$\left.\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\Big/$$

$$\left(\text{AppellF1}\left[1,\,-2m,\,2m,\,2,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]-\right.$$

$$\left.m\left(\text{AppellF1}\left[2,\,1-2m,\,2m,\,3,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]+\right.\right.$$

$$\left.\left.\text{AppellF1}\left[2,\,-2m,\,1+2m,\,3,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\right)\right.$$

$$\left.\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)+\left(C\,\text{AppellF1}\left[1,\,-2m,\,2m,\,2,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\left.\left.-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\Big/$$

$$\left(\text{AppellF1}\left[1,\,-2m,\,2m,\,2,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]-\right.$$

$$\left.m\left(\text{AppellF1}\left[2,\,1-2m,\,2m,\,3,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]+\right.\right.$$

$$\left.\left.\text{AppellF1}\left[2,\,-2m,\,1+2m,\,3,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.\right.$$

$$\left.\left.\left.-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\right)\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)-$$

$$\left(4\,A\,(1+m)\,\text{AppellF1}\left[1+2\,m,\,2\,m,\,1,\,2+2\,m,\,\frac{1}{2}-\frac{1}{2}\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$
$$\left.1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\left(-1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\Bigg)\Bigg/$$
$$\Bigg((1+2\,m)\,\left(-2\,(1+m)\,\text{AppellF1}\left[1+2\,m,\,2\,m,\,1,\,2+2\,m,\,\frac{1}{2}-\frac{1}{2}\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$
$$\left.1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]+\left(\text{AppellF1}\left[2+2\,m,\,2\,m,\,2,\,3+2\,m,\right.\right.$$
$$\left.\frac{1}{2}-\frac{1}{2}\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]+m$$
$$\text{AppellF1}\left[2+2\,m,\,1+2\,m,\,1,\,3+2\,m,\,\frac{1}{2}-\frac{1}{2}\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$
$$\left.\left.1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\right)\left(-1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\Bigg)\Bigg)+$$
$$\left(28\,C\,(1+m)\,\text{AppellF1}\left[1+2\,m,\,2\,m,\,1,\,2+2\,m,\,\frac{1}{2}-\frac{1}{2}\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$
$$\left.1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\left(-1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\Bigg)\Bigg/$$
$$\Bigg((1+2\,m)\,\left(-2\,(1+m)\,\text{AppellF1}\left[1+2\,m,\,2\,m,\,1,\,2+2\,m,\,\frac{1}{2}-\frac{1}{2}\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$
$$\left.1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]+\left(\text{AppellF1}\left[2+2\,m,\,2\,m,\,2,\,3+2\,m,\right.\right.$$
$$\left.\frac{1}{2}-\frac{1}{2}\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]+m$$
$$\text{AppellF1}\left[2+2\,m,\,1+2\,m,\,1,\,3+2\,m,\,\frac{1}{2}-\frac{1}{2}\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$
$$\left.\left.1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\right)\left(-1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\Bigg)\Bigg)-$$
$$\left(32\,C\left(1-\left(\frac{1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}\right)^{-2\,m}+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\left(-1-\right.\right.\right.$$
$$\left.\left.\left.\left(\frac{1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}\right)^{-2\,m}\right)\right)\Bigg)\Bigg/\left((1+2\,m)\,\left(1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\right)\Bigg)\Bigg/$$
$$\left(8\sqrt{2}\,f\,\left(c-c\,\text{Sin}\left[e+f\,x\right]\right)^{3/2}\left(-\frac{1}{2\sqrt{2}}\,m\left(\frac{1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}\right)^{-1+2\,m}\right.\right.$$
$$\left(-\left(\left(\text{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\right.\right.\right.$$
$$\left.\left.\left.\left(1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\right)\Big/\left(2\left(1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^2\right)\right)-$$
$$\left.\left.\frac{\text{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]}{2\left(1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)}\right)\right)$$

$$\left(-\left(\left(A\,\text{AppellF1}\left[1,\,-2\,m,\,2\,m,\,2,\,\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\right)\Big/\left(-m\left(\text{AppellF1}\left[2,\,1-2\,m,\,2\,m,\,3,\,\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]+\text{AppellF1}\left[2,\,-2\,m,\,1+2\,m,\,3,\,\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\right)+\text{AppellF1}\left[1,\,-2\,m,\,2\,m,\,2,\,\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\right)-\left(C\,\text{AppellF1}\left[1,\,-2\,m,\,2\,m,\,2,\,\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\right)\Big/\left(-m\left(\text{AppellF1}\left[2,\,1-2\,m,\,2\,m,\,3,\,\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]+\text{AppellF1}\left[2,\,-2\,m,\,1+2\,m,\,3,\,\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\right)+\text{AppellF1}\left[1,\,-2\,m,\,2\,m,\,2,\,\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)+\left(A\,\text{AppellF1}\left[1,\,-2\,m,\,2\,m,\,2,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\Big/\left(\text{AppellF1}\left[1,\,-2\,m,\,2\,m,\,2,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]-m\left(\text{AppellF1}\left[2,\,1-2\,m,\,2\,m,\,3,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]+\text{AppellF1}\left[2,\,-2\,m,\,1+2\,m,\,3,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\right)\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)+\left(C\,\text{AppellF1}\left[1,\,-2\,m,\,2\,m,\,2,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\Big/\left(\text{AppellF1}\left[1,\,-2\,m,\,2\,m,\,2,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]-m\left(\text{AppellF1}\left[2,\,1-2\,m,\,2\,m,\,3,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]+\text{AppellF1}\left[2,\,-2\,m,\,1+2\,m,\,3,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\right)\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)-\left(4\,A\,(1+m)\,\text{AppellF1}\left[1+2\,m,\,2\,m,\,1,\,2+2\,m,\,\frac{1}{2}-\frac{1}{2}\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2$$

$$\left(-1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\Big)\Big/\Big(\left(1+2 m\right)\left(-2\left(1+m\right)\text{AppellF1}\left[1+2 m,\right.\right.$$
$$\left.2 m,\ 1,\ 2+2 m,\ \frac{1}{2}-\frac{1}{2}\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ 1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]+$$
$$\left(\text{AppellF1}\left[2+2 m,\ 2 m,\ 2,\ 3+2 m,\ \frac{1}{2}-\frac{1}{2}\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.\right.$$
$$\left.1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]+m\,\text{AppellF1}\left[2+2 m,\ 1+2 m,\ 1,\ 3+2 m,\right.$$
$$\left.\left.\frac{1}{2}-\frac{1}{2}\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ 1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]\right)$$
$$\left.\left(-1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\right)\Big)+\Big(28 C\left(1+m\right)\text{AppellF1}\left[1+2 m,\right.$$
$$2 m,\ 1,\ 2+2 m,\ \frac{1}{2}-\frac{1}{2}\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ 1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]$$
$$\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\left(-1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\Big)\Big/$$
$$\Big(\left(1+2 m\right)\left(-2\left(1+m\right)\text{AppellF1}\left[1+2 m,\ 2 m,\ 1,\ 2+2 m,\ \frac{1}{2}-\right.\right.$$
$$\frac{1}{2}\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ 1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]+\Big(\text{AppellF1}\left[2+2 m,$$
$$2 m,\ 2,\ 3+2 m,\ \frac{1}{2}-\frac{1}{2}\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ 1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]+$$
$$m\,\text{AppellF1}\left[2+2 m,\ 1+2 m,\ 1,\ 3+2 m,\ \frac{1}{2}-\frac{1}{2}\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$
$$\left.\left.1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]\right)\left(-1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\Big)\Big)-$$
$$\Big(32 C\left(1-\left(\frac{1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}\right)^{-2 m}+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right.$$
$$\left.\left(-1-\left(\frac{1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}\right)^{-2 m}\right)\right)\Big)\Big/$$
$$\left(\left(1+2 m\right)\left(1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\right)-\frac{1}{4\sqrt{2}}\left(\frac{1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}\right)^{2 m}$$
$$\Big(-\Big(\Big(A\left(\frac{1}{2}m\,\text{AppellF1}\left[2,\ 1-2 m,\ 2 m,\ 3,\ \text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.\right.$$
$$\left.-\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]\text{Csc}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2+$$
$$\frac{1}{2}m\,\text{AppellF1}\left[2,\ -2 m,\ 1+2 m,\ 3,\ \text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$
$$\left.\left.-\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]\text{Csc}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big)\Big)\Big/$$

$$\left(-m\left(\text{AppellF1}\left[2,\,1-2m,\,2m,\,3,\,\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]^2,\,-\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]^2\right]+\text{AppellF1}\left[2,\,-2m,\,1+2m,\,3,\,\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]^2,\,-\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]^2\right]\right)+\text{AppellF1}\left[1,\,-2m,\,2m,\,2,\,\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]^2,\,-\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]^2\right]\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]^2\right)-\left(C\left(\frac{1}{2}m\,\text{AppellF1}\left[2,\,1-2m,\,2m,\,3,\,\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]^2,\,-\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]^2\right]\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]\text{Csc}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]^2+\frac{1}{2}m\,\text{AppellF1}\left[2,\,-2m,\,1+2m,\,3,\,\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]^2,\,-\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]^2\right]\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]\text{Csc}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]^2\right)\Big/\left(-m\left(\text{AppellF1}\left[2,\,1-2m,\,2m,\,3,\,\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]^2,\,-\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]^2\right]+\text{AppellF1}\left[2,\,-2m,\,1+2m,\,3,\,\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]^2,\,-\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]^2\right]\right)+\text{AppellF1}\left[1,\,-2m,\,2m,\,2,\,\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]^2,\,-\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]^2\right]\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]^2\right)+\left(A\,\text{AppellF1}\left[1,\,-2m,\,2m,\,2,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]^2\right]\text{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]^2\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]\right)\Big/\left(2\left(\text{AppellF1}\left[1,\,-2m,\,2m,\,2,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]^2\right]-m\left(\text{AppellF1}\left[2,\,1-2m,\,2m,\,3,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]^2\right]+\text{AppellF1}\left[2,\,-2m,\,1+2m,\,3,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]^2\right]\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]^2\right)\right)+\left(C\,\text{AppellF1}\left[1,\,-2m,\,2m,\,2,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]^2\right]\text{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]^2\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]\right)\Big/\left(2\left(\text{AppellF1}\left[1,\,-2m,\,2m,\,2,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]^2\right]-m\left(\text{AppellF1}\left[2,\,1-2m,\,2m,\,3,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]^2\right]+\text{AppellF1}\left[2,\,-2m,\,1+2m,\,3,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-\right.\right.\right.\right.$$

$$\left.\left.\left.\left.\text{f x}\right)\right]^2,-\text{Tan}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]^2\right]\right)\text{Tan}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]^2\right)\right)+$$

$$\left(\text{A Tan}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]^2\left(-\frac{1}{2}\text{m AppellF1}\left[2,1-2\text{m},2\text{m},3,\text{Tan}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]^2,\right.\right.\right.$$

$$\left.-\text{Tan}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]^2\right]\text{Sec}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]^2\text{Tan}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]-$$

$$\frac{1}{2}\text{m AppellF1}\left[2,-2\text{m},1+2\text{m},3,\text{Tan}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]^2,\right.$$

$$\left.\left.\left.-\text{Tan}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]^2\right]\text{Sec}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]^2\text{Tan}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]\right)\right)\Big/$$

$$\left(\text{AppellF1}\left[1,-2\text{m},2\text{m},2,\text{Tan}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]^2,-\text{Tan}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]^2\right]-\right.$$

$$\text{m}\left(\text{AppellF1}\left[2,1-2\text{m},2\text{m},3,\text{Tan}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]^2,-\text{Tan}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]^2\right]+\right.$$

$$\text{AppellF1}\left[2,-2\text{m},1+2\text{m},3,\text{Tan}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]^2,\right.$$

$$\left.\left.\left.-\text{Tan}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]^2\right]\right)\text{Tan}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]^2\right)+$$

$$\left(\text{C Tan}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]^2\left(-\frac{1}{2}\text{m AppellF1}\left[2,1-2\text{m},2\text{m},3,\text{Tan}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]^2,\right.\right.\right.$$

$$\left.-\text{Tan}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]^2\right]\text{Sec}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]^2\text{Tan}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]-$$

$$\frac{1}{2}\text{m AppellF1}\left[2,-2\text{m},1+2\text{m},3,\text{Tan}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]^2,\right.$$

$$\left.\left.\left.-\text{Tan}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]^2\right]\text{Sec}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]^2\text{Tan}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]\right)\right)\Big/$$

$$\left(\text{AppellF1}\left[1,-2\text{m},2\text{m},2,\text{Tan}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]^2,-\text{Tan}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]^2\right]-\right.$$

$$\text{m}\left(\text{AppellF1}\left[2,1-2\text{m},2\text{m},3,\text{Tan}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]^2,-\text{Tan}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]^2\right]+\right.$$

$$\text{AppellF1}\left[2,-2\text{m},1+2\text{m},3,\text{Tan}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]^2,\right.$$

$$\left.\left.\left.-\text{Tan}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]^2\right]\right)\text{Tan}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]^2\right)+$$

$$\left(\text{A AppellF1}\left[1,-2\text{m},2\text{m},2,\text{Cot}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]^2,-\text{Cot}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]^2\right]\right.$$

$$\left(-\text{m}\left(\frac{4}{3}\text{m AppellF1}\left[3,1-2\text{m},1+2\text{m},4,\text{Cot}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]^2,\right.\right.\right.$$

$$\left.-\text{Cot}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]^2\right]\text{Cot}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]\text{Csc}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]^2-$$

$$\frac{1}{3}\left(1-2\text{m}\right)\text{AppellF1}\left[3,2-2\text{m},2\text{m},4,\text{Cot}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]^2,\right.$$

$$\left.-\text{Cot}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]^2\right]\text{Cot}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]\text{Csc}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]^2+$$

$$\frac{1}{3}\left(1+2\text{m}\right)\text{AppellF1}\left[3,-2\text{m},2+2\text{m},4,\text{Cot}\left[\frac{1}{4}\left(-\text{e}+\frac{\pi}{2}-\text{f x}\right)\right]^2,\right.$$

$$-\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]\text{Csc}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big)+$$
$$\frac{1}{2}\,\text{AppellF1}\left[1,\,-2m,\,2m,\,2,\,\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\,-\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]$$
$$\text{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]+\left(\frac{1}{2}\,m\,\text{AppellF1}\left[2,\right.\right.$$
$$1-2m,\,2m,\,3,\,\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\,-\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]$$
$$\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]\text{Csc}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2+\frac{1}{2}\,m\,\text{AppellF1}\left[2,\right.$$
$$\left.-2m,\,1+2m,\,3,\,\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\,-\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]$$
$$\left.\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]\text{Csc}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big)\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big)\right)\Big/$$
$$\left(-m\left(\text{AppellF1}\left[2,\,1-2m,\,2m,\,3,\,\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\,-\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]+\right.\right.$$
$$\text{AppellF1}\left[2,\,-2m,\,1+2m,\,3,\,\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$
$$\left.\left.-\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]\right)+\text{AppellF1}\left[1,\,-2m,\,2m,\,2,\right.$$
$$\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\,-\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big)^2+$$
$$\left(C\,\text{AppellF1}\left[1,\,-2m,\,2m,\,2,\,\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\,-\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]\right.$$
$$\left(-m\left(\frac{4}{3}\,m\,\text{AppellF1}\left[3,\,1-2m,\,1+2m,\,4,\,\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.\right.$$
$$\left.-\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]\text{Csc}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2-\right.$$
$$\frac{1}{3}\left(1-2m\right)\text{AppellF1}\left[3,\,2-2m,\,2m,\,4,\,\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$
$$\left.-\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]\text{Csc}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2+\right.$$
$$\frac{1}{3}\left(1+2m\right)\text{AppellF1}\left[3,\,-2m,\,2+2m,\,4,\,\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$
$$\left.\left.-\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]\text{Csc}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big)+\right.$$
$$\frac{1}{2}\,\text{AppellF1}\left[1,\,-2m,\,2m,\,2,\,\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\,-\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]$$
$$\text{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]+\left(\frac{1}{2}\,m\,\text{AppellF1}\left[2,\right.\right.$$
$$1-2m,\,2m,\,3,\,\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\,-\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]$$
$$\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]\text{Csc}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2+\frac{1}{2}\,m\,\text{AppellF1}\left[2,\right.$$
$$\left.-2m,\,1+2m,\,3,\,\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\,-\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]$$

$$\text{Cot}\Big[\frac{1}{4}\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]\ \text{Csc}\Big[\frac{1}{4}\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]^2\Big)\ \text{Tan}\Big[\frac{1}{4}\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]^2\Big)\Big)\Big/$$

$$\Big(-m\,\Big(\text{AppellF1}\Big[2,\,1-2\,m,\,2\,m,\,3,\,\text{Cot}\Big[\frac{1}{4}\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]^2,\,-\text{Cot}\Big[\frac{1}{4}\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]^2\Big]+$$

$$\text{AppellF1}\Big[2,\,-2\,m,\,1+2\,m,\,3,\,\text{Cot}\Big[\frac{1}{4}\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]^2,$$

$$-\text{Cot}\Big[\frac{1}{4}\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]^2\Big]\Big)+\text{AppellF1}\Big[1,\,-2\,m,\,2\,m,\,2,$$

$$\text{Cot}\Big[\frac{1}{4}\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]^2,\,-\text{Cot}\Big[\frac{1}{4}\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]^2\Big]\ \text{Tan}\Big[\frac{1}{4}\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]^2\Big)^2-$$

$$\Big(A\,\text{AppellF1}\Big[1,\,-2\,m,\,2\,m,\,2,\,\text{Tan}\Big[\frac{1}{4}\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]^2,\,-\text{Tan}\Big[\frac{1}{4}\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]^2\Big]$$

$$\text{Tan}\Big[\frac{1}{4}\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]^2\ \Big(-\frac{1}{2}\,m\,\text{AppellF1}\Big[2,\,1-2\,m,\,2\,m,\,3,\,\text{Tan}\Big[\frac{1}{4}\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]^2,$$

$$-\text{Tan}\Big[\frac{1}{4}\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]^2\Big]\ \text{Sec}\Big[\frac{1}{4}\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]^2\ \text{Tan}\Big[\frac{1}{4}\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]-$$

$$\frac{1}{2}\,m\,\text{AppellF1}\Big[2,\,-2\,m,\,1+2\,m,\,3,\,\text{Tan}\Big[\frac{1}{4}\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]^2,$$

$$-\text{Tan}\Big[\frac{1}{4}\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]^2\Big]\ \text{Sec}\Big[\frac{1}{4}\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]^2\ \text{Tan}\Big[\frac{1}{4}\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]-$$

$$\frac{1}{2}\,m\,\Big(\text{AppellF1}\Big[2,\,1-2\,m,\,2\,m,\,3,\,\text{Tan}\Big[\frac{1}{4}\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]^2,$$

$$-\text{Tan}\Big[\frac{1}{4}\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]^2\Big]+\text{AppellF1}\Big[2,\,-2\,m,\,1+2\,m,$$

$$3,\,\text{Tan}\Big[\frac{1}{4}\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]^2,\,-\text{Tan}\Big[\frac{1}{4}\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]^2\Big]\Big)$$

$$\text{Sec}\Big[\frac{1}{4}\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]^2\ \text{Tan}\Big[\frac{1}{4}\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]-m\,\text{Tan}\Big[\frac{1}{4}\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]^2$$

$$\Big(-\frac{4}{3}\,m\,\text{AppellF1}\Big[3,\,1-2\,m,\,1+2\,m,\,4,\,\text{Tan}\Big[\frac{1}{4}\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]^2,$$

$$-\text{Tan}\Big[\frac{1}{4}\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]^2\Big]\ \text{Sec}\Big[\frac{1}{4}\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]^2\ \text{Tan}\Big[\frac{1}{4}\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]+$$

$$\frac{1}{3}\,(1-2\,m)\ \text{AppellF1}\Big[3,\,2-2\,m,\,2\,m,\,4,\,\text{Tan}\Big[\frac{1}{4}\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]^2,$$

$$-\text{Tan}\Big[\frac{1}{4}\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]^2\Big]\ \text{Sec}\Big[\frac{1}{4}\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]^2\ \text{Tan}\Big[\frac{1}{4}\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]-$$

$$\frac{1}{3}\,(1+2\,m)\ \text{AppellF1}\Big[3,\,-2\,m,\,2+2\,m,\,4,\,\text{Tan}\Big[\frac{1}{4}\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]^2,\,-\text{Tan}\Big[\frac{1}{4}$$

$$\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]^2\Big]\ \text{Sec}\Big[\frac{1}{4}\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]^2\ \text{Tan}\Big[\frac{1}{4}\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]\Big)\Big)\Big)\Big/$$

$$\Big(\text{AppellF1}\Big[1,\,-2\,m,\,2\,m,\,2,\,\text{Tan}\Big[\frac{1}{4}\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]^2,\,-\text{Tan}\Big[\frac{1}{4}\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]^2\Big]-$$

$$m\,\Big(\text{AppellF1}\Big[2,\,1-2\,m,\,2\,m,\,3,\,\text{Tan}\Big[\frac{1}{4}\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]^2,$$

$$-\text{Tan}\Big[\frac{1}{4}\Big(-e+\frac{\pi}{2}-f\,x\Big)\Big]^2\Big]+\text{AppellF1}\Big[2,\,-2\,m,\,1+2\,m,\,3,\,\text{Tan}\Big[\frac{1}{4}\Big(-e+$$

$$\left(\frac{\pi}{2}-f x\right)\Big]^2,\ -\text{Tan}\Big[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2\Big]\Big)\ \text{Tan}\Big[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2\Big)^2-$$
$$\Big(C\ \text{AppellF1}\Big[1,\ -2m,\ 2m,\ 2,\ \text{Tan}\Big[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2,\ -\text{Tan}\Big[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2\Big]$$
$$\text{Tan}\Big[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2\Big(-\frac{1}{2}m\ \text{AppellF1}\Big[2,\ 1-2m,\ 2m,\ 3,\ \text{Tan}\Big[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2,$$
$$-\text{Tan}\Big[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2\Big]\ \text{Sec}\Big[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2\ \text{Tan}\Big[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\Big]-$$
$$\frac{1}{2}m\ \text{AppellF1}\Big[2,\ -2m,\ 1+2m,\ 3,\ \text{Tan}\Big[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2,$$
$$-\text{Tan}\Big[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2\Big]\ \text{Sec}\Big[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2\ \text{Tan}\Big[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\Big]-$$
$$\frac{1}{2}m\ \Big(\text{AppellF1}\Big[2,\ 1-2m,\ 2m,\ 3,\ \text{Tan}\Big[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2,$$
$$-\text{Tan}\Big[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2\Big]+\text{AppellF1}\Big[2,\ -2m,\ 1+2m,$$
$$3,\ \text{Tan}\Big[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2,\ -\text{Tan}\Big[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2\Big]\Big)$$
$$\text{Sec}\Big[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2\ \text{Tan}\Big[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\Big]-m\ \text{Tan}\Big[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2$$
$$\Big(-\frac{4}{3}m\ \text{AppellF1}\Big[3,\ 1-2m,\ 1+2m,\ 4,\ \text{Tan}\Big[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2,$$
$$-\text{Tan}\Big[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2\Big]\ \text{Sec}\Big[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2\ \text{Tan}\Big[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\Big]+$$
$$\frac{1}{3}\left(1-2m\right)\ \text{AppellF1}\Big[3,\ 2-2m,\ 2m,\ 4,\ \text{Tan}\Big[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2,$$
$$-\text{Tan}\Big[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2\Big]\ \text{Sec}\Big[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2\ \text{Tan}\Big[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\Big]-$$
$$\frac{1}{3}\left(1+2m\right)\ \text{AppellF1}\Big[3,\ -2m,\ 2+2m,\ 4,\ \text{Tan}\Big[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2,\ -\text{Tan}\Big[\frac{1}{4}$$
$$\left(-e+\frac{\pi}{2}-f x\right)\Big]^2\Big]\ \text{Sec}\Big[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2\ \text{Tan}\Big[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\Big]\Big)\Big)\Big)\Big/$$
$$\Big(\text{AppellF1}\Big[1,\ -2m,\ 2m,\ 2,\ \text{Tan}\Big[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2,\ -\text{Tan}\Big[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2\Big]-$$
$$m\ \Big(\text{AppellF1}\Big[2,\ 1-2m,\ 2m,\ 3,\ \text{Tan}\Big[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2,$$
$$-\text{Tan}\Big[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2\Big]+\text{AppellF1}\Big[2,\ -2m,\ 1+2m,\ 3,\ \text{Tan}\Big[\frac{1}{4}\left(-e+$$
$$\frac{\pi}{2}-f x\right)\Big]^2,\ -\text{Tan}\Big[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2\Big]\Big)\ \text{Tan}\Big[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2\Big)^2-$$
$$\Big(2A\left(1+m\right)\ \text{AppellF1}\Big[1+2m,\ 2m,\ 1,\ 2+2m,\ \frac{1}{2}-\frac{1}{2}\text{Tan}\Big[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2,$$
$$1-\text{Tan}\Big[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2\Big]\ \text{Csc}\Big[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\Big]\ \text{Sec}\Big[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\Big]\Big)\Big/$$
$$\Big(\left(1+2m\right)\ \Big(-2\left(1+m\right)\ \text{AppellF1}\Big[1+2m,\ 2m,\ 1,\ 2+2m,\ \frac{1}{2}-\frac{1}{2}\text{Tan}\Big[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2,$$

$$1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]+\Bigg(\text{AppellF1}\Big[2+2m,\,2m,\,2,\,3+2m,\,\frac{1}{2}-\frac{1}{2}\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\,1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]+m\,\text{AppellF1}\Big[2+2m,\,1+2m,\,1,\,3+2m,\,\frac{1}{2}-\frac{1}{2}\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\,1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]\Big)\left(-1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\Bigg)+\Bigg(14C(1+m)\,\text{AppellF1}\Big[1+2m,\,2m,\,1,\,2+2m,\,\frac{1}{2}-\frac{1}{2}\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\,1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]\text{Csc}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]\text{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]\Bigg)\Big/\Bigg((1+2m)\Bigg(-2(1+m)\,\text{AppellF1}\Big[1+2m,\,2m,\,1,\,2+2m,\,\frac{1}{2}-\frac{1}{2}\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\,1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]+\Bigg(\text{AppellF1}\Big[2+2m,\,2m,\,2,\,3+2m,\,\frac{1}{2}-\frac{1}{2}\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\,1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]+m\,\text{AppellF1}\Big[2+2m,\,1+2m,\,1,\,3+2m,\,\frac{1}{2}-\frac{1}{2}\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\,1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]\Big)\left(-1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\Bigg)+\Bigg(2A(1+m)\,\text{AppellF1}\Big[1+2m,\,2m,\,1,\,2+2m,\,\frac{1}{2}-\frac{1}{2}\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\,1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]\text{Csc}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\left(-1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\Bigg)\Big/\Bigg((1+2m)\Bigg(-2(1+m)\,\text{AppellF1}\Big[1+2m,\,2m,\,1,\,2+2m,\,\frac{1}{2}-\frac{1}{2}\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\,1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]+\Bigg(\text{AppellF1}\Big[2+2m,\,2m,\,2,\,3+2m,\,\frac{1}{2}-\frac{1}{2}\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\,1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]+m\,\text{AppellF1}\Big[2+2m,\,1+2m,\,1,\,3+2m,\,\frac{1}{2}-\frac{1}{2}\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\,1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]\Big)\left(-1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\Bigg)-\Bigg(14C(1+m)\,\text{AppellF1}\Big[1+2m,\,2m,\,1,\,2+2m,\,\frac{1}{2}-\frac{1}{2}\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\,1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]\text{Csc}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\left(-1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\Bigg)\Big/\Bigg((1+2m)\Bigg(-2(1+m)\,\text{AppellF1}\Big[1+2m,\,2m,\,1,\,2+2m,\,\frac{1}{2}-\frac{1}{2}\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$

$$1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]+\Big(\text{AppellF1}\Big[2+2 m,\ 2 m,\ 2,\ 3+2 m,$$
$$\frac{1}{2}-\frac{1}{2}\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ 1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]+$$
$$m\,\text{AppellF1}\Big[2+2 m,\ 1+2 m,\ 1,\ 3+2 m,\ \frac{1}{2}-\frac{1}{2}\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$
$$1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]\Big)\Big(-1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big)\Big)\Big)-$$
$$\Big(4 A\,(1+m)\,\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big(-\frac{1}{2\,(2+2 m)}(1+2 m)\,\text{AppellF1}\Big[2+2 m,$$
$$2 m,\ 2,\ 3+2 m,\ \frac{1}{2}-\frac{1}{2}\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ 1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]$$
$$\text{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]-\frac{1}{2\,(2+2 m)}$$
$$m\,(1+2 m)\,\text{AppellF1}\Big[2+2 m,\ 1+2 m,\ 1,\ 3+2 m,\ \frac{1}{2}-\frac{1}{2}\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$
$$1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]\text{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2$$
$$\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]\Big)\Big(-1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big)\Big)\Big/$$
$$\Big((1+2 m)\,\Big(-2\,(1+m)\,\text{AppellF1}\Big[1+2 m,\ 2 m,\ 1,\ 2+2 m,\ \frac{1}{2}-\frac{1}{2}\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$
$$1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]+\Big(\text{AppellF1}\Big[2+2 m,\ 2 m,\ 2,\ 3+2 m,$$
$$\frac{1}{2}-\frac{1}{2}\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ 1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]+$$
$$m\,\text{AppellF1}\Big[2+2 m,\ 1+2 m,\ 1,\ 3+2 m,\ \frac{1}{2}-\frac{1}{2}\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$
$$1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]\Big)\Big(-1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big)\Big)\Big)+$$
$$\Big(28 C\,(1+m)\,\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big(-\frac{1}{2\,(2+2 m)}(1+2 m)\,\text{AppellF1}\Big[2+2 m,$$
$$2 m,\ 2,\ 3+2 m,\ \frac{1}{2}-\frac{1}{2}\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ 1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]$$
$$\text{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]-\frac{1}{2\,(2+2 m)}$$
$$m\,(1+2 m)\,\text{AppellF1}\Big[2+2 m,\ 1+2 m,\ 1,\ 3+2 m,\ \frac{1}{2}-\frac{1}{2}\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$
$$1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]\text{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2$$
$$\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]\Big)\Big(-1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big)\Big)\Big/$$
$$\Big((1+2 m)\,\Big(-2\,(1+m)\,\text{AppellF1}\Big[1+2 m,\ 2 m,\ 1,\ 2+2 m,\ \frac{1}{2}-\frac{1}{2}\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$

$$1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]+\Bigg(\text{AppellF1}\Big[2+2 m,\,2 m,\,2,\,3+2 m,\,\frac{1}{2}-\frac{1}{2}\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\,1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]+$$

$$m\,\text{AppellF1}\Big[2+2 m,\,1+2 m,\,1,\,3+2 m,\,\frac{1}{2}-\frac{1}{2}\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$

$$1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]\Big)\left(-1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\Bigg)\Bigg)+$$

$$\Bigg(4 A\,(1+m)\,\text{AppellF1}\Big[1+2 m,\,2 m,\,1,\,2+2 m,\,\frac{1}{2}-\frac{1}{2}\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$

$$1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\left(-1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)$$

$$\Bigg(\frac{1}{2}\Bigg(\text{AppellF1}\Big[2+2 m,\,2 m,\,2,\,3+2 m,\,\frac{1}{2}-\frac{1}{2}\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$

$$1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]+m\,\text{AppellF1}\Big[2+2 m,\,1+2 m,\,1,\,3+2 m,$$

$$\frac{1}{2}-\frac{1}{2}\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\,1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]\Bigg)$$

$$\text{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]-2\,(1+m)$$

$$\Bigg(-\frac{1}{2\,(2+2 m)}(1+2 m)\,\text{AppellF1}\Big[2+2 m,\,2 m,\,2,\,3+2 m,$$

$$\frac{1}{2}-\frac{1}{2}\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\,1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]$$

$$\text{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]-\frac{1}{2\,(2+2 m)}m\,(1+2 m)$$

$$\text{AppellF1}\Big[2+2 m,\,1+2 m,\,1,\,3+2 m,\,\frac{1}{2}-\frac{1}{2}\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\,1-$$

$$\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]\text{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]\Bigg)+$$

$$\left(-1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\Bigg(-\frac{1}{3+2 m}(2+2 m)\,\text{AppellF1}\Big[3+2 m,$$

$$2 m,\,3,\,4+2 m,\,\frac{1}{2}-\frac{1}{2}\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\,1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]$$

$$\text{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]-\frac{1}{2\,(3+2 m)}$$

$$m\,(2+2 m)\,\text{AppellF1}\Big[3+2 m,\,1+2 m,\,2,\,4+2 m,\,\frac{1}{2}-\frac{1}{2}\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$

$$1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]\text{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]+$$

$$m\Bigg(-\frac{1}{2\,(3+2 m)}(2+2 m)\,\text{AppellF1}\Big[3+2 m,\,1+2 m,\,2,\,4+2 m,$$

$$\frac{1}{2}-\frac{1}{2}\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\,1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]$$

$$\operatorname{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right] - \frac{1}{4\left(3+2m\right)}$$
$$\left(1+2m\right)\left(2+2m\right) \operatorname{AppellF1}\left[3+2m,\ 2+2m,\ 1,\ 4+2m,\right.$$
$$\left.\frac{1}{2}-\frac{1}{2}\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ 1-\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]$$
$$\left.\left.\operatorname{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]\right)\right)\Big)\Big)\Big)\Big/$$
$$\left(\left(1+2m\right)\left(-2\left(1+m\right)\operatorname{AppellF1}\left[1+2m,\ 2m,\ 1,\ 2+2m,\ \frac{1}{2}-\frac{1}{2}\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.\right.$$
$$\left.1-\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right] + \left(\operatorname{AppellF1}\left[2+2m,\ 2m,\ 2,\ 3+2m,\right.\right.$$
$$\left.\frac{1}{2}-\frac{1}{2}\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ 1-\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right] +$$
$$m \operatorname{AppellF1}\left[2+2m,\ 1+2m,\ 1,\ 3+2m,\ \frac{1}{2}-\frac{1}{2}\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$
$$\left.\left.\left.1-\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]\right)\left(-1+\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\right)^2\right) -$$
$$\left(28 C\left(1+m\right)\operatorname{AppellF1}\left[1+2m,\ 2m,\ 1,\ 2+2m,\ \frac{1}{2}-\frac{1}{2}\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.\right.$$
$$\left.1-\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]\operatorname{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\left(-1+\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)$$
$$\left(\frac{1}{2}\left(\operatorname{AppellF1}\left[2+2m,\ 2m,\ 2,\ 3+2m,\ \frac{1}{2}-\frac{1}{2}\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.\right.\right.$$
$$\left.1-\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right] + m \operatorname{AppellF1}\left[2+2m,\ 1+2m,\ 1,\ 3+2m,\right.$$
$$\left.\left.\frac{1}{2}-\frac{1}{2}\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ 1-\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]\right)$$
$$\operatorname{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right] - 2\left(1+m\right)$$
$$\left(-\frac{1}{2\left(2+2m\right)}\left(1+2m\right)\operatorname{AppellF1}\left[2+2m,\ 2m,\ 2,\ 3+2m,\right.\right.$$
$$\left.\frac{1}{2}-\frac{1}{2}\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ 1-\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]$$
$$\operatorname{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right] - \frac{1}{2\left(2+2m\right)}m\left(1+2m\right)$$
$$\operatorname{AppellF1}\left[2+2m,\ 1+2m,\ 1,\ 3+2m,\ \frac{1}{2}-\frac{1}{2}\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ 1-\right.$$
$$\left.\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]\operatorname{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right] +$$
$$\left(-1+\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\left(-\frac{1}{3+2m}\left(2+2m\right)\operatorname{AppellF1}\left[3+2m,\right.\right.$$
$$\left.\left.2m,\ 3,\ 4+2m,\ \frac{1}{2}-\frac{1}{2}\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ 1-\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]\right.$$

$$\operatorname{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right] - \frac{1}{2\left(3+2m\right)}$$

$$m\left(2+2m\right) \operatorname{AppellF1}\left[3+2m,\ 1+2m,\ 2,\ 4+2m,\ \frac{1}{2}-\frac{1}{2}\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$

$$\left.1-\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right] \operatorname{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right] +$$

$$m\left(-\frac{1}{2\left(3+2m\right)}\left(2+2m\right) \operatorname{AppellF1}\left[3+2m,\ 1+2m,\ 2,\ 4+2m,\right.\right.$$

$$\left.\frac{1}{2}-\frac{1}{2}\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ 1-\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]$$

$$\operatorname{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right] - \frac{1}{4\left(3+2m\right)}$$

$$\left(1+2m\right)\left(2+2m\right) \operatorname{AppellF1}\left[3+2m,\ 2+2m,\ 1,\ 4+2m,\right.$$

$$\left.\frac{1}{2}-\frac{1}{2}\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ 1-\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]$$

$$\left.\left.\left.\left.\operatorname{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]\right)\right)\right)\right) \Big/$$

$$\left(\left(1+2m\right)\left(-2\left(1+m\right) \operatorname{AppellF1}\left[1+2m,\ 2m,\ 1,\ 2+2m,\ \frac{1}{2}-\frac{1}{2}\right.\right.\right.$$

$$\left.\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ 1-\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right] +$$

$$\left(\operatorname{AppellF1}\left[2+2m,\ 2m,\ 2,\ 3+2m,\ \frac{1}{2}-\frac{1}{2}\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.\right.$$

$$\left.\left.1-\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right] + m \operatorname{AppellF1}\left[2+2m,\ 1+2m,\ 1,\ 3+2m,\right.\right.$$

$$\left.\left.\left.\frac{1}{2}-\frac{1}{2}\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ 1-\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]\right)\right.$$

$$\left.\left.\left(-1+\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\right)^2\right) + \left(16\,C \operatorname{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right.$$

$$\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]\left(1-\left(\frac{1-\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{1+\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}\right)^{-2m} +\right.$$

$$\left.\left.\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\left(-1-\left(\frac{1-\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{1+\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}\right)^{-2m}\right)\right)\right) \Big/$$

$$\left(\left(1+2m\right)\left(1+\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^2\right) - \frac{1}{\left(1+2m\right)\left(1+\operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)}$$

$$32\,C\left(\frac{1}{2}\operatorname{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \operatorname{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]\right.$$

$$\left(-1-\left(\frac{1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}\right)^{-2m}\right)+2m\left(\frac{1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}\right)^{-1-2m}$$

$$\left(-\left(\left(\text{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]\right.\right.\right.$$

$$\left.\left.\left.\left(1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\right)\Big/\left(2\left(1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^2\right)\right)-$$

$$\left.\frac{\text{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]}{2\left(1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)}\right)+2m$$

$$\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\left(\frac{1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}\right)^{-1-2m}$$

$$\left(-\left(\left(\text{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]\right.\right.\right.$$

$$\left.\left.\left.\left(1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\right)\Big/\left(2\left(1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^2\right)\right)-$$

$$\left.\left.\left.\left.\left.\left.\frac{\text{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]}{2\left(1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)}\right)\right)\right)\right)\right)\right)$$

Problem 6: Result unnecessarily involves higher level functions and more than twice size of optimal antiderivative.

$$\int\frac{(a+a\,\text{Sin}[e+f x])^m\,(A+C\,\text{Sin}[e+f x]^2)}{(c-c\,\text{Sin}[e+f x])^{5/2}}\,dx$$

Optimal (type 5, 207 leaves, 5 steps):

$$\frac{(A+C)\,\text{Cos}[e+f x]\,(a+a\,\text{Sin}[e+f x])^{1+m}}{8\,a\,f\,(c-c\,\text{Sin}[e+f x])^{5/2}}+$$

$$\frac{(A\,(5-2m)-C\,(11+2m))\,\text{Cos}[e+f x]\,(a+a\,\text{Sin}[e+f x])^m}{16\,c\,f\,(c-c\,\text{Sin}[e+f x])^{3/2}}+$$

$$\left((A\,(3-8m+4m^2)+C\,(19+24m+4m^2))\,\text{Cos}[e+f x]\,\text{Hypergeometric2F1}\left[1,\frac{1}{2}+m,\frac{3}{2}+m,\right.\right.$$

$$\left.\left.\frac{1}{2}\,(1+\text{Sin}[e+f x])\right]\,(a+a\,\text{Sin}[e+f x])^m\right)\Big/\left(32\,c^2\,f\,(1+2m)\,\sqrt{c-c\,\text{Sin}[e+f x]}\right)$$

Result (type 6, 27 269 leaves): Display of huge result suppressed!

Problem 8: Result unnecessarily involves higher level functions and more than

twice size of optimal antiderivative.

$$\int (a + a \sin[e + f x])^m (c - c \sin[e + f x])^n (A + C \sin[e + f x]^2) \, dx$$

Optimal (type 5, 257 leaves, 6 steps):

$$\left(2^{\frac{1}{2}+n} c \left(C (1 + 2m) (m - n) + (1 + m + n) \left(C (1 - m + n) + A (2 + m + n)\right)\right) \cos[e + f x]\right.$$
$$\text{Hypergeometric2F1}\left[\frac{1}{2}(1 + 2m), \frac{1}{2}(1 - 2n), \frac{1}{2}(3 + 2m), \frac{1}{2}(1 + \sin[e + f x])\right]$$
$$\left.(1 - \sin[e + f x])^{\frac{1}{2}-n} (a + a \sin[e + f x])^m (c - c \sin[e + f x])^{-1+n}\right) /$$
$$\left(f (1 + 2m) (1 + m + n) (2 + m + n)\right) -$$
$$\frac{C (1 + 2m) \cos[e + f x] (a + a \sin[e + f x])^m (c - c \sin[e + f x])^n}{f (1 + m + n) (2 + m + n)} +$$
$$\frac{C \cos[e + f x] (a + a \sin[e + f x])^m (c - c \sin[e + f x])^{1+n}}{c f (2 + m + n)}$$

Result (type 6, 25 546 leaves): Display of huge result suppressed!

Problem 9: Result more than twice size of optimal antiderivative.

$$\int (a + a \sin[e + f x])^m (c + d \sin[e + f x])^n (A + C \sin[e + f x]^2) \, dx$$

Optimal (type 6, 366 leaves, 10 steps):

$$-\frac{C \cos[e + f x] (a + a \sin[e + f x])^m (c + d \sin[e + f x])^{1+n}}{d f (2 + m + n)} +$$
$$\left(\sqrt{2} \left(c (C + 2Cm) + d \left(C (1 - m + n) + A (2 + m + n)\right)\right)\right.$$
$$\text{AppellF1}\left[\frac{1}{2} + m, \frac{1}{2}, -n, \frac{3}{2} + m, \frac{1}{2}(1 + \sin[e + f x]), -\frac{d (1 + \sin[e + f x])}{c - d}\right]$$
$$\left.\cos[e + f x] (a + a \sin[e + f x])^m (c + d \sin[e + f x])^n \left(\frac{c + d \sin[e + f x]}{c - d}\right)^{-n}\right) /$$
$$\left(d f (1 + 2m) (2 + m + n) \sqrt{1 - \sin[e + f x]}\right) +$$
$$\left(\sqrt{2} C (dm - c (1 + m)) \text{AppellF1}\left[\frac{3}{2} + m, \frac{1}{2}, -n, \frac{5}{2} + m, \frac{1}{2}(1 + \sin[e + f x]), -\frac{d (1 + \sin[e + f x])}{c - d}\right]\right.$$
$$\left.\cos[e + f x] (a + a \sin[e + f x])^{1+m} (c + d \sin[e + f x])^n \left(\frac{c + d \sin[e + f x]}{c - d}\right)^{-n}\right) /$$
$$\left(a d f (3 + 2m) (2 + m + n) \sqrt{1 - \sin[e + f x]}\right)$$

Result (type 6, 2255 leaves):

$$-\frac{1}{2 f} \cos\left[\frac{1}{2}\left(-e + \frac{\pi}{2} - f x\right)\right]^{-2m} \left(-\left(\left(6 C (c + d)\right.\right.\right.$$

$$\text{AppellF1}\left[\frac{1}{2},\ -\frac{3}{2}-m,\ -n,\ \frac{3}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\ \frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]$$
$$\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{3+2m}\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}+\frac{1}{2}(-4-2m)}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]$$
$$\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{3}{2}+m}\left(c+d-2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^n\Bigg)\Bigg/\Bigg(-3\,(c+d)$$
$$\text{AppellF1}\left[\frac{1}{2},\ -\frac{3}{2}-m,\ -n,\ \frac{3}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\ \frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$
$$\Bigg(4\,d\,n\,\text{AppellF1}\left[\frac{3}{2},\ -\frac{3}{2}-m,\ 1-n,\ \frac{5}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,$$
$$\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+(c+d)\,(3+2m)\,\text{AppellF1}\left[\frac{3}{2},\ -\frac{1}{2}-m,\ -n,\ \frac{5}{2},$$
$$\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\ \frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)\Bigg)+$$
$$\Bigg(12\,A\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\ \frac{1}{2}-m,\ -n,\ \frac{3}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\ \frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]$$
$$\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{-1+2m}\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}-m}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]$$
$$\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{-\frac{1}{2}+m}\left(c+d-2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^n\Bigg)\Bigg/$$
$$\Bigg(3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\ \frac{1}{2}-m,\ -n,\ \frac{3}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\ \frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]-$$
$$\Bigg(4\,d\,n\,\text{AppellF1}\left[\frac{3}{2},\ \frac{1}{2}-m,\ 1-n,\ \frac{5}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\ \frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$
$$(c+d)\,(-1+2m)\,\text{AppellF1}\left[\frac{3}{2},\ \frac{3}{2}-m,\ -n,\ \frac{5}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,$$
$$\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)+$$
$$\Bigg(6\,C\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\ \frac{1}{2}-m,\ -n,\ \frac{3}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\ \frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]$$
$$\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{-1+2m}\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}-m}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]$$

$$\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^{-\frac{1}{2}+m}\left(c+d-2 d \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^n\Bigg)\Bigg/$$

$$\Bigg(3(c+d)\,\text{AppellF1}\left[\frac{1}{2},\frac{1}{2}-m,-n,\frac{3}{2},\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\frac{2 d \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]-$$

$$\Bigg(4 d n\,\text{AppellF1}\left[\frac{3}{2},\frac{1}{2}-m,1-n,\frac{5}{2},\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\frac{2 d \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+$$

$$(c+d)(-1+2m)\,\text{AppellF1}\left[\frac{3}{2},\frac{3}{2}-m,-n,\frac{5}{2},\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\frac{2 d \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\Bigg)\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg)+$$

$$\Bigg(20 C(c+d)\,\text{AppellF1}\left[\frac{3}{2},-\frac{1}{2}-m,-n,\frac{5}{2},\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\frac{2 d \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^{1+2m}$$

$$\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^{\frac{1}{2}(-1-2m)}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^3$$

$$\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^{\frac{1}{2}+m}\left(c+d-2 d \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^n\Bigg)\Bigg/$$

$$\Bigg(-5(c+d)\,\text{AppellF1}\left[\frac{3}{2},-\frac{1}{2}-m,-n,\frac{5}{2},\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\frac{2 d \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+$$

$$\Bigg(4 d n\,\text{AppellF1}\left[\frac{5}{2},-\frac{1}{2}-m,1-n,\frac{7}{2},\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\frac{2 d \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+(c+d)(1+2m)\,\text{AppellF1}\left[\frac{5}{2},\frac{1}{2}-m,-n,\frac{7}{2},\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\frac{2 d \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\Bigg)\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg)-$$

$$\Bigg(14 C(c+d)\,\text{AppellF1}\left[\frac{5}{2},\frac{1}{2}-m,-n,\frac{7}{2},\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\frac{2 d \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]$$

$$\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{-1+2\,m}\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}(1-2\,m)}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^5$$
$$\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{-\frac{1}{2}+m}\left(c+d-2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^n\Bigg)\Bigg/$$
$$\Bigg(5\left(-7\,(c+d)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{1}{2}-m,\,-n,\,\frac{7}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$
$$\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\left(4\,d\,n\,\text{AppellF1}\left[\frac{7}{2},\,\frac{1}{2}-m,\,1-n,\,\frac{9}{2},\right.\right.$$
$$\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Bigg]+(c+d)\,(-1+2\,m)$$
$$\left.\left.\text{AppellF1}\left[\frac{7}{2},\,\frac{3}{2}-m,\,-n,\,\frac{9}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)$$
$$\left.\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\Bigg)\Bigg)\,(a+a\,\text{Sin}[e+f\,x])^m$$

Problem 10: Result more than twice size of optimal antiderivative.

$$\int(a+a\,\text{Sin}[e+f\,x])^m\,(c+d\,\text{Sin}[e+f\,x])^{-2-m}\,(A+C\,\text{Sin}[e+f\,x]^2)\,dx$$

Optimal (type 6, 392 leaves, 8 steps):

$$\frac{(c^2\,C+A\,d^2)\,\text{Cos}[e+f\,x]\,(a+a\,\text{Sin}[e+f\,x])^m\,(c+d\,\text{Sin}[e+f\,x])^{-1-m}}{d\,(c^2-d^2)\,f\,(1+m)}-$$
$$\Bigg(2^{\frac{1}{2}+m}\,a\,(c\,(A+C)\,d\,(1+m)+d^2\,(C-A\,m+C\,m)-c^2\,(C+2\,C\,m))\,\text{Cos}[e+f\,x]$$
$$\text{Hypergeometric2F1}\left[\frac{1}{2},\,\frac{1}{2}-m,\,\frac{3}{2},\,\frac{(c-d)\,(1-\text{Sin}[e+f\,x])}{2\,(c+d\,\text{Sin}[e+f\,x])}\right](a+a\,\text{Sin}[e+f\,x])^{-1+m}$$
$$\left(\frac{(c+d)\,(1+\text{Sin}[e+f\,x])}{c+d\,\text{Sin}[e+f\,x]}\right)^{\frac{1}{2}-m}(c+d\,\text{Sin}[e+f\,x])^{-m}\Bigg)\Bigg/\left((c-d)\,d\,(c+d)^2\,f\,(1+m)\right)+$$
$$\Bigg(\sqrt{2}\,C\,\text{AppellF1}\left[\frac{3}{2}+m,\,\frac{1}{2},\,1+m,\,\frac{5}{2}+m,\,\frac{1}{2}\,(1+\text{Sin}[e+f\,x]),\,-\frac{d\,(1+\text{Sin}[e+f\,x])}{c-d}\right]$$
$$\text{Cos}[e+f\,x]\,(a+a\,\text{Sin}[e+f\,x])^{1+m}\,(c+d\,\text{Sin}[e+f\,x])^{-m}\left(\frac{c+d\,\text{Sin}[e+f\,x]}{c-d}\right)^m\Bigg)\Bigg/$$
$$\left(a\,(c-d)\,d\,f\,(3+2\,m)\,\sqrt{1-\text{Sin}[e+f\,x]}\right)$$

Result (type 6, 7642 leaves):

$$-\left(\left(2\,\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{-1-2\,m}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\right.\right.$$

$$\left(a+a\,\text{Sin}[e+f\,x]\right)^m\left(2\,A\,\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{2\,m}\left(c+d\,\text{Sin}[e+f\,x]\right)^{-2-m}+\right.$$

$$C\,\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{2\,m}\left(c+d\,\text{Sin}[e+f\,x]\right)^{-2-m}+$$

$$\left.C\,\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{2\,m}\text{Cos}\left[2\left(-e+\frac{\pi}{2}-f\,x\right)\right]\left(c+d\,\text{Sin}[e+f\,x]\right)^{-2-m}\right)$$

$$\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{-m}\left(c+\frac{d-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}\right)^{-m}$$

$$\left(\frac{1}{c-d}A\,(c+d)\,\text{Hypergeometric2F1}\left[\frac{1}{2},\,1+m,\,\frac{3}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right.$$

$$\left(1+\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right)^m-\frac{1}{(c-d)\,d^2}c^2\,C\,(c+d)\,\text{Hypergeometric2F1}\left[\frac{1}{2},\,1+m,\right.$$

$$\left.\frac{3}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\left(1+\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right)^m+\frac{1}{(c-d)\,d}$$

$$2\,c\,C\,(c+d)\,\text{Hypergeometric2F1}\left[\frac{1}{2},\,1+m,\,\frac{3}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]$$

$$\left(1+\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right)^m-\frac{1}{(c-d)\,d}2\,c^2\,C\,\text{Hypergeometric2F1}\left[\frac{1}{2},\right.$$

$$\left.2+m,\,\frac{3}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\left(1+\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right)^m-$$

$$\frac{1}{c-d}2\,A\,d\,\text{Hypergeometric2F1}\left[\frac{1}{2},\,2+m,\,\frac{3}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]$$

$$\left(1+\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right)^m-\left(3\,C\,(c+d)^3\right.$$

$$\left.\text{AppellF1}\left[\frac{1}{2},\,m,\,1,\,\frac{3}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\right)\Big/$$

$$\left(d^2\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\left(-3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,m,\,1,\,\frac{3}{2},\right.\right.\right.$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]+2\Bigg((c+d)\,\text{AppellF1}\Big[\frac{3}{2},\ m,\ 2,\ \frac{5}{2},\ -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]+(c-d)\,m\,\text{AppellF1}\Big[\frac{3}{2},\ 1+m,\ 1,\ \frac{5}{2},\ -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]\Bigg)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg)\Bigg)\Bigg)\Bigg)\Bigg/$$

$$\Bigg((c+d)^2 f\Bigg(-\frac{1}{(c+d)^2}4m\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^{-m}\Bigg(-\frac{d\,\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]}{1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}-\left(\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\left(d-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\right)\Big/\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^2\Bigg)\left(c+\frac{d-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}\right)^{-1-m}\Bigg(\frac{1}{c-d}A\,(c+d)\,\text{Hypergeometric2F1}\Big[\frac{1}{2},\ 1+m,\ \frac{3}{2},\ -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\left(1+\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right)^m-\frac{1}{(c-d)\,d^2}c^2\,C\,(c+d)\,\text{Hypergeometric2F1}\Big[\frac{1}{2},\ 1+m,\ \frac{3}{2},\ -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\left(1+\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right)^m+\frac{1}{(c-d)\,d}2\,c\,C\,(c+d)\,\text{Hypergeometric2F1}\Big[\frac{1}{2},\ 1+m,\ \frac{3}{2},\ -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\left(1+\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right)^m-\frac{1}{(c-d)\,d}2\,c^2\,C\,\text{Hypergeometric2F1}\Big[\frac{1}{2},\ 2+m,\ \frac{3}{2},\ -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\left(1+\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right)^m-\frac{1}{c-d}2\,A\,d\,\text{Hypergeometric2F1}\Big[\frac{1}{2},\ 2+m,$$

$$\frac{3}{2}, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Bigg]\left(1+\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right)^m -$$

$$\left(3C(c+d)^3\,\text{AppellF1}\left[\frac{1}{2}, m, 1, \frac{3}{2}, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d},\right.\right.$$

$$\left.\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]\right)\Bigg/\left(d^2\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\right.$$

$$\left(-3(c+d)\,\text{AppellF1}\left[\frac{1}{2}, m, 1, \frac{3}{2}, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d},\right.\right.$$

$$\left.\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]+2\left((c+d)\,\text{AppellF1}\left[\frac{3}{2}, m, 2, \frac{5}{2},\right.\right.\right.$$

$$\left.\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]+\right.$$

$$(c-d)\,m\,\text{AppellF1}\left[\frac{3}{2}, 1+m, 1, \frac{5}{2}, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d},\right.$$

$$\left.\left.\left.\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\right)\right)-\frac{1}{(c+d)^2}$$

$$4m\,\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^{-1-m}$$

$$\left(c+\frac{d-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}\right)^{-m}$$

$$\left(\frac{1}{c-d}A(c+d)\,\text{Hypergeometric2F1}\left[\frac{1}{2}, 1+m, \frac{3}{2}, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\right.$$

$$\left(1+\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right)^m-\frac{1}{(c-d)\,d^2}$$

$$c^2C(c+d)\,\text{Hypergeometric2F1}\left[\frac{1}{2}, 1+m, \frac{3}{2}, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]$$

$$\left(1+\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right)^m+\frac{1}{(c-d)\,d}2c\,C(c+d)\,\text{Hypergeometric2F1}\left[\frac{1}{2},\right.$$

$$\left.1+m, \frac{3}{2}, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\left(1+\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right)^m -$$

$$\frac{1}{(c-d)\,d}2\,c^2\,C\,\text{Hypergeometric2F1}\left[\frac{1}{2},\,2+m,\,\frac{3}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]$$
$$\left(1+\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right)^m-\frac{1}{c-d}2\,A\,d\,\text{Hypergeometric2F1}\left[\frac{1}{2},\,2+m,\right.$$
$$\left.\frac{3}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\left(1+\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right)^m-$$
$$\left(3\,C\,(c+d)^3\,\text{AppellF1}\left[\frac{1}{2},\,m,\,1,\,\frac{3}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d},\right.\right.$$
$$\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\Bigg/\left(d^2\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\right.$$
$$\left(-3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,m,\,1,\,\frac{3}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d},\right.\right.$$
$$\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]+2\left((c+d)\,\text{AppellF1}\left[\frac{3}{2},\,m,\,2,\,\frac{5}{2},\right.\right.$$
$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]+$$
$$(c-d)\,m\,\text{AppellF1}\left[\frac{3}{2},\,1+m,\,1,\,\frac{5}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d},\right.$$
$$\left.\left.\left.\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\right)\right)+$$
$$\frac{1}{(c+d)^2}2\,\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{-m}$$
$$\left(c+\frac{d-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}\right)^{-m}$$
$$\left(\frac{1}{c-d}A\,(c+d)\,\text{Hypergeometric2F1}\left[\frac{1}{2},\,1+m,\,\frac{3}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right.$$
$$\left(1+\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right)^m-\frac{1}{(c-d)\,d^2}$$
$$c^2\,C\,(c+d)\,\text{Hypergeometric2F1}\left[\frac{1}{2},\,1+m,\,\frac{3}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]$$

$$\left(1+\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right)^m+\frac{1}{(c-d)\,d}$$

$$2\,c\,C\,(c+d)\,\text{Hypergeometric2F1}\left[\frac{1}{2},\,1+m,\,\frac{3}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]$$

$$\left(1+\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right)^m-\frac{1}{(c-d)\,d}$$

$$2\,c^2\,C\,\text{Hypergeometric2F1}\left[\frac{1}{2},\,2+m,\,\frac{3}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]$$

$$\left(1+\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right)^m-\frac{1}{c-d}2\,A\,d\,\text{Hypergeometric2F1}\left[\frac{1}{2},\,2+m,\,\frac{3}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\left(1+\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right)^m-$$

$$\left(3\,C\,(c+d)^3\,\text{AppellF1}\left[\frac{1}{2},\,m,\,1,\,\frac{3}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d},\right.\right.$$

$$\left.\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]\right)\Big/\left(d^2\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\right.$$

$$\left(-3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,m,\,1,\,\frac{3}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d},\right.\right.$$

$$\left.\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]+2\left((c+d)\,\text{AppellF1}\left[\frac{3}{2},\,m,\,2,\,\frac{5}{2},\right.\right.\right.$$

$$\left.\left.\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]+\right.\right.$$

$$\left.\left.(c-d)\,m\,\text{AppellF1}\left[\frac{3}{2},\,1+m,\,1,\,\frac{5}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d},\right.\right.\right.$$

$$\left.\left.\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\right)\right)+$$

$$\frac{1}{(c+d)^2}4\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^{-m}$$

$$\left(c+\frac{d-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}\right)^{-m}$$

$$\left(A\, m\, \text{Hypergeometric2F1}\left[\frac{1}{2},\, 1+m,\, \frac{3}{2},\, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\right.$$

$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]$$

$$\left(1+\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right)^{-1+m} - \frac{1}{d^2} c^2\, C\, m\, \text{Hypergeometric2F1}\left[\right.$$

$$\frac{1}{2},\, 1+m,\, \frac{3}{2},\, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big] \text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2$$

$$\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\left(1+\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right)^{-1+m} + \frac{1}{d}$$

$$2\, c\, C\, m\, \text{Hypergeometric2F1}\left[\frac{1}{2},\, 1+m,\, \frac{3}{2},\, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]$$

$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]$$

$$\left(1+\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right)^{-1+m} - \frac{1}{d\,(c+d)} 2\, c^2\, C\, m\, \text{Hypergeometric2F1}\left[\right.$$

$$\frac{1}{2},\, 2+m,\, \frac{3}{2},\, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big] \text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2$$

$$\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\left(1+\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right)^{-1+m} - \frac{1}{c+d}$$

$$2\, A\, d\, m\, \text{Hypergeometric2F1}\left[\frac{1}{2},\, 2+m,\, \frac{3}{2},\, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]$$

$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]$$

$$\left(1+\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right)^{-1+m} + \left(3\, C\, (c+d)^3\right.$$

$$\text{AppellF1}\left[\frac{1}{2},\, m,\, 1,\, \frac{3}{2},\, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d},\, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]$$

$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\Bigg) \Bigg/ \left(d^2\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^2\right.$$

$$\left(-3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\, m,\, 1,\, \frac{3}{2},\, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right.\right.,$$

$$-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]+2\left(\left(c+d\right)\text{AppellF1}\left[\frac{3}{2},\,m,\,2,\,\frac{5}{2},\right.\right.$$

$$\left.-\frac{\left(c-d\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]+\right.$$

$$\left(c-d\right)m\,\text{AppellF1}\left[\frac{3}{2},\,1+m,\,1,\,\frac{5}{2},\,-\frac{\left(c-d\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d},\right.$$

$$\left.\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\Big)-$$

$$\left(3C\left(c+d\right)^3\left(-\frac{1}{3}\text{AppellF1}\left[\frac{3}{2},\,m,\,2,\,\frac{5}{2},\,-\frac{\left(c-d\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d},\right.\right.$$

$$\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]-\right.$$

$$\frac{1}{3\left(c+d\right)}\left(c-d\right)m\,\text{AppellF1}\left[\frac{3}{2},\,1+m,\,1,\,\frac{5}{2},\,-\frac{\left(c-d\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d},\right.$$

$$\left.\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\right)\right)\Big/$$

$$\left(d^2\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\left(-3\left(c+d\right)\text{AppellF1}\left[\frac{1}{2},\,m,\,1,\,\frac{3}{2},\right.\right.\right.$$

$$\left.-\frac{\left(c-d\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]+\right.$$

$$2\left(\left(c+d\right)\text{AppellF1}\left[\frac{3}{2},\,m,\,2,\,\frac{5}{2},\,-\frac{\left(c-d\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d},\right.\right.$$

$$\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]+\left(c-d\right)m\,\text{AppellF1}\left[\frac{3}{2},\,1+m,\,1,\,\frac{5}{2},\right.\right.$$

$$\left.\left.-\frac{\left(c-d\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]\right)$$

$$\left.\left.\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\right)-\frac{1}{\left(c-d\right)d}c^2\,C\,\text{Csc}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]$$

$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\left(1+\frac{\left(c-d\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right)^m$$

$$\left(-\text{Hypergeometric2F1}\left[\frac{1}{2},\,2+m,\,\frac{3}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\left(1+\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right)^{-2-m}\right)-\frac{1}{c-d}$$

$$A\,d\,\text{Csc}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\left(1+\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right)^{m}$$

$$\left(-\text{Hypergeometric2F1}\left[\frac{1}{2},\,2+m,\,\frac{3}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\left(1+\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right)^{-2-m}\right)+$$

$$\frac{1}{2\,(c-d)}A\,(c+d)\,\text{Csc}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\left(1+\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right)^{m}\left(-\text{Hypergeometric2F1}\left[\frac{1}{2},\,1+m,\,\frac{3}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\left(1+\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right)^{-1-m}\right)-$$

$$\frac{1}{2\,(c-d)\,d^2}c^2\,C\,(c+d)\,\text{Csc}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\left(1+\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right)^{m}\left(-\text{Hypergeometric2F1}\left[\frac{1}{2},\,1+m,\,\frac{3}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\left(1+\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right)^{-1-m}\right)+$$

$$\frac{1}{(c-d)\,d}c\,C\,(c+d)\,\text{Csc}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\left(1+\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right)^{m}\left(-\text{Hypergeometric2F1}\left[\frac{1}{2},\,1+m,\,\frac{3}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\left(1+\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right)^{-1-m}\right)+$$

$$\left(3\,C\,(c+d)^3\,\text{AppellF1}\left[\frac{1}{2},\,m,\,1,\,\frac{3}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d},\right.\right.$$
$$\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\left(2\left(\left(c+d\right)\,\text{AppellF1}\left[\frac{3}{2},\,m,\,2,\,\frac{5}{2},\right.\right.\right.$$
$$\left.\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]+$$
$$(c-d)\,m\,\text{AppellF1}\left[\frac{3}{2},\,1+m,\,1,\,\frac{5}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d},\right.$$
$$\left.\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\right)\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]-$$
$$3\,(c+d)\left(-\frac{1}{3}\,\text{AppellF1}\left[\frac{3}{2},\,m,\,2,\,\frac{5}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d},\right.\right.$$
$$\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]-$$
$$\frac{1}{3\,(c+d)}(c-d)\,m\,\text{AppellF1}\left[\frac{3}{2},\,1+m,\,1,\,\frac{5}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d},\right.$$
$$\left.\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\right)+$$
$$2\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\left((c+d)\left(-\frac{6}{5}\,\text{AppellF1}\left[\frac{5}{2},\,m,\,3,\,\frac{7}{2},\right.\right.\right.$$
$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]$$
$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]-\frac{1}{5\,(c+d)}$$
$$3\,(c-d)\,m\,\text{AppellF1}\left[\frac{5}{2},\,1+m,\,2,\,\frac{7}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d},\right.$$
$$\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2$$
$$\left.\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\right)+(c-d)\,m\left(-\frac{3}{5}\,\text{AppellF1}\left[\frac{5}{2},\,1+m,\,2,\right.\right.$$
$$\left.\left.\frac{7}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\right.$$

$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]-\frac{1}{5\,(c+d)}3\,(c-d)$$

$$(1+m)\,\text{AppellF1}\left[\frac{5}{2},\,2+m,\,1,\,\frac{7}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d},\right.$$

$$\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2$$

$$\left.\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\right)\Big)\Big)\Big)\Big/\left(d^2\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\right.$$

$$\left(-3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,m,\,1,\,\frac{3}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d},\right.\right.$$

$$\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]+2\left((c+d)\,\text{AppellF1}\left[\frac{3}{2},\,m,\,2,\,\frac{5}{2},\right.\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]+$$

$$(c-d)\,m\,\text{AppellF1}\left[\frac{3}{2},\,1+m,\,1,\,\frac{5}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d},\right.$$

$$\left.\left.\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\right)\Big)\Big)\Big)\Big)$$

Problem 11: Result more than twice size of optimal antiderivative.

$$\int(a+a\,\text{Sin}[e+f\,x])^m\,(c+d\,\text{Sin}[e+f\,x])^{3/2}\,(A+C\,\text{Sin}[e+f\,x]^2)\,dx$$

Optimal (type 6, 385 leaves, 10 steps):

$$-\frac{2\,C\,\text{Cos}[e+f\,x]\,\left(a+a\,\text{Sin}[e+f\,x]\right)^m\left(c+d\,\text{Sin}[e+f\,x]\right)^{5/2}}{d\,f\,(7+2\,m)}+$$

$$\left(\sqrt{2}\,(c-d)\,\left(2\,c\,(C+2\,C\,m)+d\,(C\,(5-2\,m)+A\,(7+2\,m))\right)\right.$$

$$\text{AppellF1}\left[\frac{1}{2}+m,\ \frac{1}{2},\ -\frac{3}{2},\ \frac{3}{2}+m,\ \frac{1}{2}\,(1+\text{Sin}[e+f\,x]),\ -\frac{d\,(1+\text{Sin}[e+f\,x])}{c-d}\right]$$

$$\left.\text{Cos}[e+f\,x]\,\left(a+a\,\text{Sin}[e+f\,x]\right)^m\sqrt{c+d\,\text{Sin}[e+f\,x]}\right)\Big/$$

$$\left(d\,f\,(1+2\,m)\,(7+2\,m)\,\sqrt{1-\text{Sin}[e+f\,x]}\,\sqrt{\frac{c+d\,\text{Sin}[e+f\,x]}{c-d}}\right)+$$

$$\left(2\sqrt{2}\,C\,(c-d)\,(d\,m-c\,(1+m))\,\text{AppellF1}\left[\frac{3}{2}+m,\ \frac{1}{2},\ -\frac{3}{2},\ \frac{5}{2}+m,\ \frac{1}{2}\,(1+\text{Sin}[e+f\,x]),\right.\right.$$

$$\left.-\frac{d\,(1+\text{Sin}[e+f\,x])}{c-d}\right]\text{Cos}[e+f\,x]\,\left(a+a\,\text{Sin}[e+f\,x]\right)^{1+m}\sqrt{c+d\,\text{Sin}[e+f\,x]}\Big)\Big/$$

$$\left(a\,d\,f\,(3+2\,m)\,(7+2\,m)\,\sqrt{1-\text{Sin}[e+f\,x]}\,\sqrt{\frac{c+d\,\text{Sin}[e+f\,x]}{c-d}}\right)$$

Result (type 6, 5809 leaves):

$$\frac{1}{2\,f}\,\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{-2\,m}$$

$$\left(\left(3\,C\,d\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\ -\frac{5}{2}-m,\ -\frac{1}{2},\ \frac{3}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\ \frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right.\right.$$

$$\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{5+2\,m}\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}+\frac{1}{2}\,(-6-2\,m)}\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]$$

$$\left.\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{5}{2}+m}\sqrt{c+d-2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}\right)\Big/\left(-3\,(c+d)\right.$$

$$\text{AppellF1}\left[\frac{1}{2},\ -\frac{5}{2}-m,\ -\frac{1}{2},\ \frac{3}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\ \frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$

$$\left(2\,d\,\text{AppellF1}\left[\frac{3}{2},\ -\frac{5}{2}-m,\ \frac{1}{2},\ \frac{5}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\ \frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\right.$$

$$(c+d)\,(5+2\,m)\,\text{AppellF1}\left[\frac{3}{2},\ -\frac{3}{2}-m,\ -\frac{1}{2},\ \frac{5}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$\left.\left.\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)+$$

$$\left(6\,c\,C\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,-\frac{3}{2}-m,\,-\frac{1}{2},\,\frac{3}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{3+2m}$$

$$\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}+\frac{1}{2}(-4-2m)}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]$$

$$\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{3}{2}+m}\sqrt{c+d-2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}\Bigg)\Bigg/\Bigg(-3\,(c+d)$$

$$\text{AppellF1}\left[\frac{1}{2},\,-\frac{3}{2}-m,\,-\frac{1}{2},\,\frac{3}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$

$$\left(2\,d\,\text{AppellF1}\left[\frac{3}{2},\,-\frac{3}{2}-m,\,\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\right.$$

$$(c+d)\,(3+2\,m)\,\text{AppellF1}\left[\frac{3}{2},\,-\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$\left.\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)+$$

$$\left(12\,A\,d\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,-\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{3}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{1+2m}$$

$$\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}+\frac{1}{2}(-2-2m)}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]$$

$$\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}+m}\sqrt{c+d-2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}\Bigg)\Bigg/\Bigg(-3\,(c+d)$$

$$\text{AppellF1}\left[\frac{1}{2},\,-\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{3}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$

$$\left(2\,d\,\text{AppellF1}\left[\frac{3}{2},\,-\frac{1}{2}-m,\,\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\right.$$

$$(c+d)\,(1+2\,m)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$\left.\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)+$$

$$\Bigg(9\,C\,d\,(c+d)\,\text{AppellF1}\Big[\frac{1}{2},\,-\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{3}{2},\,\text{Sin}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2,\,\frac{2\,d\,\text{Sin}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2}{c+d}\Big]\,\text{Cos}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^{1+2\,m}$$
$$\left(\text{Cos}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2\right)^{\frac{1}{2}+\frac{1}{2}\,(-2-2\,m)}\,\text{Sin}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]$$
$$\left(1-\text{Sin}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2\right)^{\frac{1}{2}+m}\sqrt{c+d-2\,d\,\text{Sin}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2}\Bigg)\Big/\Bigg(-3\,(c+d)$$
$$\text{AppellF1}\Big[\frac{1}{2},\,-\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{3}{2},\,\text{Sin}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2,\,\frac{2\,d\,\text{Sin}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2}{c+d}\Big]+$$
$$\Bigg(2\,d\,\text{AppellF1}\Big[\frac{3}{2},\,-\frac{1}{2}-m,\,\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2,\,\frac{2\,d\,\text{Sin}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2}{c+d}\Big]+$$
$$(c+d)\,(1+2\,m)\,\text{AppellF1}\Big[\frac{3}{2},\,\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2,$$
$$\frac{2\,d\,\text{Sin}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2}{c+d}\Big]\Bigg)\,\text{Sin}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2\Bigg)-$$

$$\Bigg(12\,A\,c\,(c+d)\,\text{AppellF1}\Big[\frac{1}{2},\,\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{3}{2},\,\text{Sin}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2,\,\frac{2\,d\,\text{Sin}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2}{c+d}\Big]\,\text{Cos}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^{-1+2\,m}$$
$$\left(\text{Cos}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2\right)^{\frac{1}{2}-m}\,\text{Sin}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]$$
$$\left(1-\text{Sin}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2\right)^{-\frac{1}{2}+m}\sqrt{c+d-2\,d\,\text{Sin}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2}\Bigg)\Big/$$
$$\Bigg(3\,(c+d)\,\text{AppellF1}\Big[\frac{1}{2},\,\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{3}{2},\,\text{Sin}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2,\,\frac{2\,d\,\text{Sin}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2}{c+d}\Big]-$$
$$\Bigg(2\,d\,\text{AppellF1}\Big[\frac{3}{2},\,\frac{1}{2}-m,\,\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2,\,\frac{2\,d\,\text{Sin}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2}{c+d}\Big]+$$
$$(c+d)\,(-1+2\,m)\,\text{AppellF1}\Big[\frac{3}{2},\,\frac{3}{2}-m,\,-\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2,$$
$$\frac{2\,d\,\text{Sin}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2}{c+d}\Big]\Bigg)\,\text{Sin}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2\Bigg)-$$

$$\left(6\,c\,C\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{3}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right.$$

$$\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{-1+2\,m}\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}-m}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]$$

$$\left.\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{-\frac{1}{2}+m}\sqrt{c+d-2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}\right)\Big/$$

$$\left(3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{3}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]-\right.$$

$$\left(2\,d\,\text{AppellF1}\left[\frac{3}{2},\,\frac{1}{2}-m,\,\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\right.$$

$$(c+d)\,(-1+2\,m)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{3}{2}-m,\,-\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$\left.\left.\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)-$$

$$\left(25\,C\,d\,(c+d)\,\text{AppellF1}\left[\frac{3}{2},\,-\frac{3}{2}-m,\,-\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{3+2\,m}$$

$$\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}(-3-2\,m)}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^3$$

$$\left.\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{3}{2}+m}\sqrt{c+d-2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}\right)\Big/\left(-5\,(c+d)\right.$$

$$\text{AppellF1}\left[\frac{3}{2},\,-\frac{3}{2}-m,\,-\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$

$$\left(2\,d\,\text{AppellF1}\left[\frac{5}{2},\,-\frac{3}{2}-m,\,\frac{1}{2},\,\frac{7}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\right.$$

$$(c+d)\,(3+2\,m)\,\text{AppellF1}\left[\frac{5}{2},\,-\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{7}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$\left.\left.\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)-$$

$$\left(20\,c\,C\,(c+d)\,\text{AppellF1}\left[\frac{3}{2},\,-\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{1+2\,m}$$

$$\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}(-1-2\,m)}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^3$$

$$\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}+m}\sqrt{c+d-2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}\Bigg)\Bigg/\Bigg(-5\,(c+d)$$

$$\text{AppellF1}\left[\frac{3}{2},\,-\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$

$$\left(2\,d\,\text{AppellF1}\left[\frac{5}{2},\,-\frac{1}{2}-m,\,\frac{1}{2},\,\frac{7}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\right.$$

$$(c+d)\,(1+2\,m)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{7}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$\left.\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)-$$

$$\left(20\,A\,d\,(c+d)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{-1+2\,m}$$

$$\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}(1-2\,m)}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^3$$

$$\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{-\frac{1}{2}+m}\sqrt{c+d-2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}\Bigg)\Bigg/$$

$$\left(3\left(-5\,(c+d)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.\right.$$

$$\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\left(2\,d\,\text{AppellF1}\left[\frac{5}{2},\,\frac{1}{2}-m,\,\frac{1}{2},\,\frac{7}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\left.\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+(c+d)\,(-1+2\,m)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{3}{2}-m,\,-\frac{1}{2},\,\frac{7}{2},\right.\right.$$

$$\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ \frac{2 d \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Bigg]\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg)\Bigg)-$$

$$\Bigg(5 C d (c+d)\,\text{AppellF1}\left[\frac{3}{2},\ \frac{1}{2}-m,\ -\frac{1}{2},\ \frac{5}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ \frac{2 d \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]$$

$$\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^{-1+2m}\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^{\frac{1}{2}(1-2m)}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^3$$

$$\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^{-\frac{1}{2}+m}\sqrt{c+d-2 d \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}\Bigg)\Bigg/$$

$$\Bigg(-5 (c+d)\,\text{AppellF1}\left[\frac{3}{2},\ \frac{1}{2}-m,\ -\frac{1}{2},\ \frac{5}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ \frac{2 d \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+$$

$$\Bigg(2 d\,\text{AppellF1}\left[\frac{5}{2},\ \frac{1}{2}-m,\ \frac{1}{2},\ \frac{7}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ \frac{2 d \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+$$

$$(c+d)(-1+2m)\,\text{AppellF1}\left[\frac{5}{2},\ \frac{3}{2}-m,\ -\frac{1}{2},\ \frac{7}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ \frac{2 d \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\Bigg)\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg)+$$

$$\Bigg(21 C d (c+d)\,\text{AppellF1}\left[\frac{5}{2},\ -\frac{1}{2}-m,\ -\frac{1}{2},\ \frac{7}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ \frac{2 d \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^{1+2m}$$

$$\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^{\frac{1}{2}(-1-2m)}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^5$$

$$\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^{\frac{1}{2}+m}\sqrt{c+d-2 d \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}\Bigg)\Bigg/$$

$$\Bigg(-7 (c+d)\,\text{AppellF1}\left[\frac{5}{2},\ -\frac{1}{2}-m,\ -\frac{1}{2},\ \frac{7}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ \frac{2 d \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+$$

$$\Bigg(2 d\,\text{AppellF1}\left[\frac{7}{2},\ -\frac{1}{2}-m,\ \frac{1}{2},\ \frac{9}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ \frac{2 d \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+$$

$$(c+d)\,(1+2m)\,\text{AppellF1}\Big[\frac{7}{2},\,\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{9}{2},\,\sin\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2,\,\frac{2d\sin\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2}{c+d}\Big]\sin\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2\Big)+$$

$$\Big(14\,c\,C\,(c+d)\,\text{AppellF1}\Big[\frac{5}{2},\,\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{7}{2},\,\sin\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2,\,\frac{2d\sin\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2}{c+d}\Big]\cos\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^{-1+2m}$$
$$\Big(\cos\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2\Big)^{\frac{1}{2}(1-2m)}\sin\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^5$$
$$\Big(1-\sin\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2\Big)^{-\frac{1}{2}+m}\sqrt{c+d-2d\sin\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2}\Big)\Big/$$

$$\Big(5\Big(-7\,(c+d)\,\text{AppellF1}\Big[\frac{5}{2},\,\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{7}{2},\,\sin\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2,\,\frac{2d\sin\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2}{c+d}\Big]+\Big(2d\,\text{AppellF1}\Big[\frac{7}{2},\,\frac{1}{2}-m,\,\frac{1}{2},\,\frac{9}{2},\,\sin\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2,$$
$$\frac{2d\sin\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2}{c+d}\Big]+(c+d)\,(-1+2m)\,\text{AppellF1}\Big[\frac{7}{2},\,\frac{3}{2}-m,\,-\frac{1}{2},\,\frac{9}{2},$$
$$\sin\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2,\,\frac{2d\sin\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2}{c+d}\Big]\sin\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2\Big)\Big)-$$

$$\Big(9\,C\,d\,(c+d)\,\text{AppellF1}\Big[\frac{7}{2},\,\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{9}{2},\,\sin\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2,\,\frac{2d\sin\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2}{c+d}\Big]$$
$$\cos\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^{-1+2m}\Big(\cos\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2\Big)^{\frac{1}{2}(1-2m)}\sin\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^7$$
$$\Big(1-\sin\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2\Big)^{-\frac{1}{2}+m}\sqrt{c+d-2d\sin\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2}\Big)\Big/$$

$$\Big(7\Big(-9\,(c+d)\,\text{AppellF1}\Big[\frac{7}{2},\,\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{9}{2},\,\sin\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2,\,\frac{2d\sin\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2}{c+d}\Big]+$$

$$\left(2\,d\,\text{AppellF1}\left[\frac{9}{2},\frac{1}{2}-m,\frac{1}{2},\frac{11}{2},\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\right.$$
$$(c+d)\,(-1+2\,m)\,\text{AppellF1}\left[\frac{9}{2},\frac{3}{2}-m,-\frac{1}{2},\frac{11}{2},\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$
$$\left.\left.\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\right)(a+a\,\text{Sin}[e+f\,x])^m$$

Problem 12: Result more than twice size of optimal antiderivative.

$$\int(a+a\,\text{Sin}[e+f\,x])^m\sqrt{c+d\,\text{Sin}[e+f\,x]}\,\left(A+C\,\text{Sin}[e+f\,x]^2\right)\,dx$$

Optimal (type 6, 375 leaves, 10 steps):

$$-\frac{2\,C\,\text{Cos}[e+f\,x]\,(a+a\,\text{Sin}[e+f\,x])^m\,(c+d\,\text{Sin}[e+f\,x])^{3/2}}{d\,f\,(5+2\,m)}+$$
$$\left(\sqrt{2}\,\left(2\,c\,(C+2\,C\,m)+d\,(C\,(3-2\,m)+A\,(5+2\,m))\right)\right.$$
$$\text{AppellF1}\left[\frac{1}{2}+m,\frac{1}{2},-\frac{1}{2},\frac{3}{2}+m,\frac{1}{2}\,(1+\text{Sin}[e+f\,x]),-\frac{d\,(1+\text{Sin}[e+f\,x])}{c-d}\right]$$
$$\left.\text{Cos}[e+f\,x]\,(a+a\,\text{Sin}[e+f\,x])^m\sqrt{c+d\,\text{Sin}[e+f\,x]}\right)\Big/$$
$$\left(d\,f\,(1+2\,m)\,(5+2\,m)\sqrt{1-\text{Sin}[e+f\,x]}\,\sqrt{\frac{c+d\,\text{Sin}[e+f\,x]}{c-d}}\right)+$$
$$\left(2\sqrt{2}\,C\,(d\,m-c\,(1+m))\,\text{AppellF1}\left[\frac{3}{2}+m,\frac{1}{2},-\frac{1}{2},\frac{5}{2}+m,\frac{1}{2}\,(1+\text{Sin}[e+f\,x]),\right.\right.$$
$$\left.\left.-\frac{d\,(1+\text{Sin}[e+f\,x])}{c-d}\right]\text{Cos}[e+f\,x]\,(a+a\,\text{Sin}[e+f\,x])^{1+m}\sqrt{c+d\,\text{Sin}[e+f\,x]}\right)\Big/$$
$$\left(a\,d\,f\,(3+2\,m)\,(5+2\,m)\sqrt{1-\text{Sin}[e+f\,x]}\,\sqrt{\frac{c+d\,\text{Sin}[e+f\,x]}{c-d}}\right)$$

Result (type 6, 2250 leaves):

$$\frac{1}{2\,f}\,\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{-2\,m}$$
$$\left(\left(6\,C\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},-\frac{3}{2}-m,-\frac{1}{2},\frac{3}{2},\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right.\right.$$
$$\left.\left.\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{3+2\,m}\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}+\frac{1}{2}(-4-2\,m)}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\right.\right.$$

$$\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^{\frac{3}{2}+m}\sqrt{c+d-2 d \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}\Bigg/\Bigg(-3(c+d)$$

$$\text{AppellF1}\left[\frac{1}{2},-\frac{3}{2}-m,-\frac{1}{2},\frac{3}{2},\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\frac{2 d \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+$$

$$\Bigg(2 d \,\text{AppellF1}\left[\frac{3}{2},-\frac{3}{2}-m,\frac{1}{2},\frac{5}{2},\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\frac{2 d \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+$$

$$(c+d)(3+2m)\,\text{AppellF1}\left[\frac{3}{2},-\frac{1}{2}-m,-\frac{1}{2},\frac{5}{2},\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$

$$\frac{2 d \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg)-$$

$$\Bigg(12 A (c+d)\,\text{AppellF1}\left[\frac{1}{2},\frac{1}{2}-m,-\frac{1}{2},\frac{3}{2},\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\frac{2 d \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]$$

$$\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^{-1+2m}\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^{\frac{1}{2}-m}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]$$

$$\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^{-\frac{1}{2}+m}\sqrt{c+d-2 d \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}\Bigg)\Bigg/$$

$$\Bigg(3(c+d)\,\text{AppellF1}\left[\frac{1}{2},\frac{1}{2}-m,-\frac{1}{2},\frac{3}{2},\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\frac{2 d \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]-$$

$$\Bigg(2 d \,\text{AppellF1}\left[\frac{3}{2},\frac{1}{2}-m,\frac{1}{2},\frac{5}{2},\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\frac{2 d \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+$$

$$(c+d)(-1+2m)\,\text{AppellF1}\left[\frac{3}{2},\frac{3}{2}-m,-\frac{1}{2},\frac{5}{2},\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$

$$\frac{2 d \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg)-$$

$$\Bigg(6 C (c+d)\,\text{AppellF1}\left[\frac{1}{2},\frac{1}{2}-m,-\frac{1}{2},\frac{3}{2},\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\frac{2 d \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]$$

$$\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^{-1+2m}\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^{\frac{1}{2}-m}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]$$

$$\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^{-\frac{1}{2}+m}\sqrt{c+d-2 d \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}\Bigg)\Bigg/$$

$$\left(3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{3}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]-\right.$$

$$\left(2\,d\,\text{AppellF1}\left[\frac{3}{2},\,\frac{1}{2}-m,\,\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\right.$$

$$(c+d)\,(-1+2\,m)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{3}{2}-m,\,-\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$\left.\left.\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)-$$

$$\left(20\,C\,(c+d)\,\text{AppellF1}\left[\frac{3}{2},\,-\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right.$$

$$\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{1+2\,m}\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}(-1-2\,m)}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^3$$

$$\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}+m}\sqrt{c+d-2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}\Bigg)\Bigg/\Bigg(-5\,(c+d)$$

$$\text{AppellF1}\left[\frac{3}{2},\,-\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$

$$\left(2\,d\,\text{AppellF1}\left[\frac{5}{2},\,-\frac{1}{2}-m,\,\frac{1}{2},\,\frac{7}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\right.$$

$$(c+d)\,(1+2\,m)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{7}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$\left.\left.\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)+$$

$$\left(14\,C\,(c+d)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{7}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right.$$

$$\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{-1+2\,m}\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}(1-2\,m)}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^5$$

$$\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{-\frac{1}{2}+m}\sqrt{c+d-2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}\Bigg)\Bigg/\Bigg(5\left(-7\,(c+d)\right.$$

$$\text{AppellF1}\left[\frac{5}{2},\,\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{7}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$

$$\left(2\,d\,\text{AppellF1}\left[\frac{7}{2},\ \frac{1}{2}-m,\ \frac{1}{2},\ \frac{9}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\ \frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\right.$$
$$(c+d)\,(-1+2\,m)\,\text{AppellF1}\left[\frac{7}{2},\ \frac{3}{2}-m,\ -\frac{1}{2},\ \frac{9}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$
$$\left.\left.\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\right)(a+a\,\text{Sin}[e+f\,x])^m$$

Problem 13: Result more than twice size of optimal antiderivative.

$$\int\frac{(a+a\,\text{Sin}[e+f\,x])^m\,(A+C\,\text{Sin}[e+f\,x]^2)}{\sqrt{c+d\,\text{Sin}[e+f\,x]}}\,dx$$

Optimal (type 6, 365 leaves, 10 steps):

$$-\frac{2\,C\,\text{Cos}[e+f\,x]\,(a+a\,\text{Sin}[e+f\,x])^m\sqrt{c+d\,\text{Sin}[e+f\,x]}}{d\,f\,(3+2\,m)}+$$
$$\left(\sqrt{2}\,(2\,c\,(C+2\,C\,m)+d\,(C-2\,C\,m+A\,(3+2\,m)))\,\text{AppellF1}\left[\frac{1}{2}+m,\ \frac{1}{2},\ \frac{1}{2},\ \frac{3}{2}+m,\ \frac{1}{2}\,(1+\text{Sin}[e+f\,x]),\right.\right.$$
$$\left.\left.-\frac{d\,(1+\text{Sin}[e+f\,x])}{c-d}\right]\text{Cos}[e+f\,x]\,(a+a\,\text{Sin}[e+f\,x])^m\sqrt{\frac{c+d\,\text{Sin}[e+f\,x]}{c-d}}\right)\Big/$$
$$\left(d\,f\,(1+2\,m)\,(3+2\,m)\,\sqrt{1-\text{Sin}[e+f\,x]}\,\sqrt{c+d\,\text{Sin}[e+f\,x]}\right)-$$
$$\left(2\sqrt{2}\,C\,(c+c\,m-d\,m)\,\text{AppellF1}\left[\frac{3}{2}+m,\ \frac{1}{2},\ \frac{1}{2},\ \frac{5}{2}+m,\ \frac{1}{2}\,(1+\text{Sin}[e+f\,x]),\ -\frac{d\,(1+\text{Sin}[e+f\,x])}{c-d}\right]\right.$$
$$\left.\text{Cos}[e+f\,x]\,(a+a\,\text{Sin}[e+f\,x])^{1+m}\sqrt{\frac{c+d\,\text{Sin}[e+f\,x]}{c-d}}\right)\Big/$$
$$\left(a\,d\,f\,(3+2\,m)^2\sqrt{1-\text{Sin}[e+f\,x]}\,\sqrt{c+d\,\text{Sin}[e+f\,x]}\right)$$

Result (type 6, 11 762 leaves):

$$-\left(\left(2\,(c+d)\,\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{-1-2\,m}\right.\right.$$
$$\left.\left.\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right](a+a\,\text{Sin}[e+f\,x])^m\left(-\frac{2\,A\,\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{2\,m}}{\sqrt{c+d\,\text{Sin}[e+f\,x]}}-\right.\right.\right.$$

$$\left(\frac{C\,\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{2\,m}}{\sqrt{c+d\,\text{Sin}[e+f\,x]}}-\frac{C\,\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{2\,m}\text{Cos}\left[2\left(-e+\frac{\pi}{2}-f\,x\right)\right]}{\sqrt{c+d\,\text{Sin}[e+f\,x]}}\right)$$

$$\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{-2-m}\sqrt{\frac{c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}}$$

$$\left(\left(\left(9\left(A\left(c-3\,d\right)+C\left(-3\,c+d\right)\right)\text{AppellF1}\left[\frac{1}{2},\frac{5}{2}+m,-\frac{1}{2},\frac{3}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,-\frac{\left(c-d\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\Big/\left(3\left(c+d\right)\text{AppellF1}\left[\frac{1}{2},\frac{5}{2}+m,-\frac{1}{2},\frac{3}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,-\frac{\left(c-d\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\left(\left(c-d\right)\text{AppellF1}\left[\frac{3}{2},\frac{5}{2}+m,\frac{1}{2},\frac{5}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,-\frac{\left(c-d\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]-\left(c+d\right)\left(5+2\,m\right)\text{AppellF1}\left[\frac{3}{2},\frac{7}{2}+m,-\frac{1}{2},\frac{5}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,-\frac{\left(c-d\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)-\left(36\left(c^2\,C+A\,d^2\right)\text{AppellF1}\left[\frac{1}{2},\frac{5}{2}+m,\frac{1}{2},\frac{3}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,-\frac{\left(c-d\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\Big/\left(\left(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\left(-3\left(c+d\right)\text{AppellF1}\left[\frac{1}{2},\frac{5}{2}+m,\frac{1}{2},\frac{3}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,-\frac{\left(c-d\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\left(\left(c-d\right)\text{AppellF1}\left[\frac{3}{2},\frac{5}{2}+m,\frac{3}{2},\frac{5}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,-\frac{\left(c-d\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\left(c+d\right)\left(5+2\,m\right)\text{AppellF1}\left[\frac{3}{2},\frac{7}{2}+m,\frac{1}{2},\frac{5}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.\right.$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Bigg]\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg)\Bigg)+$$

$$\Bigg(5\,(A+C)\,(c-d)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\,-\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg)\Big/$$

$$\Bigg(5\,(c+d)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\,-\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Bigg]+\Bigg((c-d)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{5}{2}+m,\,\frac{1}{2},\right.$$

$$\frac{7}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Bigg]-$$

$$(c+d)\,(5+2m)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{7}{2}+m,\,-\frac{1}{2},\,\frac{7}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$

$$\left.\left.\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\right)\Bigg)\Big/$$

$$\Bigg(3\,(c-d)^2 f\left(-\frac{1}{3\,(c-d)^2}4\,(c+d)\,(-2-m)\,\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right.$$

$$\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^{-3-m}\sqrt{\left(\left(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2-d\right.\right.}$$

$$\left.\left.\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\Big/\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\right)$$

$$\Bigg(\Bigg(\Bigg(9\,(A\,(c-3d)+C\,(-3c+d))\,\text{AppellF1}\left[\frac{1}{2},\,\frac{5}{2}+m,\,-\frac{1}{2},\,\frac{3}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Bigg]\Bigg)\Big/\Bigg(3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{5}{2}+m,\right.$$

$$\left.-\frac{1}{2},\,\frac{3}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+$$

$$\left((c-d)\,\text{AppellF1}\left[\frac{3}{2},\ \frac{5}{2}+m,\ \frac{1}{2},\ \frac{5}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$
$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]-(c+d)\,(5+2\,m)\,\text{AppellF1}\left[\frac{3}{2},\ \frac{7}{2}+m,\right.$$
$$\left.\left.-\frac{1}{2},\ \frac{5}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\ -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)$$
$$\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)-\left(36\left(c^2\,C+A\,d^2\right)\text{AppellF1}\left[\frac{1}{2},\ \frac{5}{2}+m,\ \frac{1}{2},\right.\right.$$
$$\left.\left.\frac{3}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\ -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\Bigg/$$
$$\left(\left(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\right.$$
$$\left(-3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\ \frac{5}{2}+m,\ \frac{1}{2},\ \frac{3}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$
$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\left((c-d)\,\text{AppellF1}\left[\frac{3}{2},\ \frac{5}{2}+m,\ \frac{3}{2},\right.\right.$$
$$\left.\frac{5}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\ -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$
$$(c+d)\,(5+2\,m)\,\text{AppellF1}\left[\frac{3}{2},\ \frac{7}{2}+m,\ \frac{1}{2},\ \frac{5}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$
$$\left.\left.\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\right)+$$
$$\left(5\,(A+C)\,(c-d)\,\text{AppellF1}\left[\frac{3}{2},\ \frac{5}{2}+m,\ -\frac{1}{2},\ \frac{5}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$
$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)\Bigg/$$
$$\left(5\,(c+d)\,\text{AppellF1}\left[\frac{3}{2},\ \frac{5}{2}+m,\ -\frac{1}{2},\ \frac{5}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$
$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\left((c-d)\,\text{AppellF1}\left[\frac{5}{2},\ \frac{5}{2}+m,\ \frac{1}{2},\right.\right.$$

$$\frac{7}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big] -$$
$$(c+d)\,(5+2m)\,\text{AppellF1}\Big[\frac{5}{2}, \frac{7}{2}+m, -\frac{1}{2}, \frac{7}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$
$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\Big)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big)\Big) -$$

$$\frac{1}{3\,(c-d)^2}\,2\,(c+d)\,\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^{-2-m}$$
$$\sqrt{\left(\frac{c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}\right)}$$
$$\Big(\Big(\Big(9\,(A\,(c-3d)+C\,(-3c+d))\,\text{AppellF1}\Big[\frac{1}{2}, \frac{5}{2}+m, -\frac{1}{2}, \frac{3}{2},$$
$$-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\Big)\Big/$$
$$\Big(3\,(c+d)\,\text{AppellF1}\Big[\frac{1}{2}, \frac{5}{2}+m, -\frac{1}{2}, \frac{3}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$
$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]+\Big((c-d)\,\text{AppellF1}\Big[\frac{3}{2}, \frac{5}{2}+m, \frac{1}{2},$$
$$\frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big] -$$
$$(c+d)\,(5+2m)\,\text{AppellF1}\Big[\frac{3}{2}, \frac{7}{2}+m, -\frac{1}{2}, \frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$
$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\Big)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big) -$$
$$\Big(36\,(c^2 C+A d^2)\,\text{AppellF1}\Big[\frac{1}{2}, \frac{5}{2}+m, \frac{1}{2}, \frac{3}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$
$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\Big)\Big/$$
$$\Big(\Big(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big)$$

$$\left(-3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{5}{2}+m,\,\frac{1}{2},\,\frac{3}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\left((c-d)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\,\frac{3}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+(c+d)\,(5+2\,m)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{7}{2}+m,\,\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)+\left(5\,(A+C)\,(c-d)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\,-\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\Big/\left(5\,(c+d)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\,-\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\left((c-d)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{5}{2}+m,\,\frac{1}{2},\,\frac{7}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+(c+d)\,(5+2\,m)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{7}{2}+m,\,-\frac{1}{2},\,\frac{7}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)-$$

$$\frac{1}{3\,(c-d)^2\sqrt{\frac{c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}}}\,2\,(c+d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]$$

$$\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{-2-m}$$

$$\left(\left(c\,\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]-d\,\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\right)\Big/\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)-$$

$$\left(\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\left(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\right)\Big/\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^2\Bigg)$$

$$\Bigg(\Bigg(9\left(A\left(c-3d\right)+C\left(-3c+d\right)\right)\text{AppellF1}\left[\frac{1}{2},\frac{5}{2}+m,-\frac{1}{2},\frac{3}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,-\frac{\left(c-d\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\Big/$$

$$\Bigg(3\left(c+d\right)\text{AppellF1}\left[\frac{1}{2},\frac{5}{2}+m,-\frac{1}{2},\frac{3}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,-\frac{\left(c-d\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+\Bigg(\left(c-d\right)\text{AppellF1}\left[\frac{3}{2},\frac{5}{2}+m,\frac{1}{2},\frac{5}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,-\frac{\left(c-d\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]-\left(c+d\right)\left(5+2m\right)\text{AppellF1}\left[\frac{3}{2},\frac{7}{2}+m,-\frac{1}{2},\frac{5}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,-\frac{\left(c-d\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\Bigg)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg)-$$

$$\Bigg(36\left(c^2C+Ad^2\right)\text{AppellF1}\left[\frac{1}{2},\frac{5}{2}+m,\frac{1}{2},\frac{3}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,-\frac{\left(c-d\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\Big/$$

$$\Bigg(\left(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\Bigg(-3\left(c+d\right)\text{AppellF1}\left[\frac{1}{2},\frac{5}{2}+m,\frac{1}{2},\frac{3}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,-\frac{\left(c-d\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+\Bigg(\left(c-d\right)\text{AppellF1}\left[\frac{3}{2},\frac{5}{2}+m,\frac{3}{2},\frac{5}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,-\frac{\left(c-d\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+\left(c+d\right)\left(5+2m\right)\text{AppellF1}\left[\frac{3}{2},\frac{7}{2}+m,\frac{1}{2},\frac{5}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Bigg]\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg)\Bigg)+$$

$$\Bigg(5\,(A+C)\,(c-d)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\,-\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg)\Big/$$

$$\Bigg(5\,(c+d)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\,-\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+\Bigg((c-d)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{5}{2}+m,\,\frac{1}{2},\right.$$

$$\left.\frac{7}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]-$$

$$(c+d)\,(5+2m)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{7}{2}+m,\,-\frac{1}{2},\,\frac{7}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg)\Bigg)-$$

$$\frac{1}{3\,(c-d)^2}4\,(c+d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^{-2-m}$$

$$\sqrt{\frac{c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}}$$

$$\Bigg(\Bigg(9\,(A\,(c-3d)+C\,(-3c+d))\,\Bigg(\frac{1}{6\,(c+d)}(c-d)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\,\frac{1}{2},\right.$$

$$\left.\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]$$

$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]-\frac{1}{3}\left(\frac{5}{2}+m\right)\text{AppellF1}\left[\frac{3}{2},\right.$$

$$\left.\frac{7}{2}+m,\,-\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]$$

$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\Bigg)\Bigg)\Big/$$

$$\left(3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{5}{2}+m,\,-\frac{1}{2},\,\frac{3}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\left(\left(c-d\right)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\,\frac{1}{2},\right.\right.$$

$$\left.\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]-$$

$$(c+d)\,(5+2\,m)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{7}{2}+m,\,-\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$\left.\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)+$$

$$\left(36\,\left(c^2\,C+A\,d^2\right)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{5}{2}+m,\,\frac{1}{2},\,\frac{3}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\,\left(c\,\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right.$$

$$\left.\left.\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]-d\,\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\right)\right)\Bigg/$$

$$\left(\left(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^2\right.$$

$$\left(-3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{5}{2}+m,\,\frac{1}{2},\,\frac{3}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\left(\left(c-d\right)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\,\frac{3}{2},\right.\right.$$

$$\left.\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$

$$(c+d)\,(5+2\,m)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{7}{2}+m,\,\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$\left.\left.\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\right)-$$

$$\left(36\,\left(c^2\,C+A\,d^2\right)\,\left(-\frac{1}{6\,(c+d)}\,(c-d)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\,\frac{3}{2},\,\frac{5}{2},\right.\right.\right.$$

$$\left.\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right.$$

$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right] - \frac{1}{3}\left(\frac{5}{2}+m\right) \text{AppellF1}\left[\frac{3}{2}, \frac{7}{2}+m, \frac{1}{2}, \frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]$$
$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\Bigg)\Bigg) \Bigg/$$
$$\Bigg(\left(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 - d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)$$
$$\Bigg(-3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2}, \frac{5}{2}+m, \frac{1}{2}, \frac{3}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right] + \Bigg((c-d)\,\text{AppellF1}\left[\frac{3}{2}, \frac{5}{2}+m, \frac{3}{2}, \frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right] + (c+d)\,(5+2m)\,\text{AppellF1}\left[\frac{3}{2}, \frac{7}{2}+m, \frac{1}{2}, \frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg)\Bigg) +$$
$$\Bigg(5\,(A+C)\,(c-d)\,\text{AppellF1}\left[\frac{3}{2}, \frac{5}{2}+m, -\frac{1}{2}, \frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\Bigg) \Bigg/$$
$$\Bigg(5\,(c+d)\,\text{AppellF1}\left[\frac{3}{2}, \frac{5}{2}+m, -\frac{1}{2}, \frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right] + \Bigg((c-d)\,\text{AppellF1}\left[\frac{5}{2}, \frac{5}{2}+m, \frac{1}{2}, \frac{7}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right] - (c+d)\,(5+2m)\,\text{AppellF1}\left[\frac{5}{2}, \frac{7}{2}+m, -\frac{1}{2}, \frac{7}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg) +$$

$$\left(5 (A+C) (c-d) \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \left(\frac{1}{10 (c+d)} 3 (c-d) \text{AppellF1}\left[\frac{5}{2}, \frac{5}{2}+m, \frac{1}{2}, \frac{7}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d) \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right] \text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right] - \frac{3}{5}\left(\frac{5}{2}+m\right) \text{AppellF1}\left[\frac{5}{2}, \frac{7}{2}+m, -\frac{1}{2}, \frac{7}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d) \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right] \text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\right)\Big/$$

$$\left(5 (c+d) \text{AppellF1}\left[\frac{3}{2}, \frac{5}{2}+m, -\frac{1}{2}, \frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d) \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right] + \left((c-d) \text{AppellF1}\left[\frac{5}{2}, \frac{5}{2}+m, \frac{1}{2}, \frac{7}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d) \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right] - (c+d) (5+2m) \text{AppellF1}\left[\frac{5}{2}, \frac{7}{2}+m, -\frac{1}{2}, \frac{7}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d) \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right] \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right) -$$

$$\left(9 (A (c-3d) + C (-3c+d)) \text{AppellF1}\left[\frac{1}{2}, \frac{5}{2}+m, -\frac{1}{2}, \frac{3}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d) \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right] \left(\left(\left((c-d) \text{AppellF1}\left[\frac{3}{2}, \frac{5}{2}+m, \frac{1}{2}, \frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d) \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right] - (c+d) (5+2m) \text{AppellF1}\left[\frac{3}{2}, \frac{7}{2}+m, -\frac{1}{2}, \frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d) \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right] \text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right] + 3 (c+d) \left(\frac{1}{6 (c+d)} (c-d) \text{AppellF1}\left[\frac{3}{2},\right.\right.\right.\right.$$

$$\frac{5}{2}+m,\ \frac{1}{2},\ \frac{5}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ -\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Bigg]$$
$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]-\frac{1}{3}\left(\frac{5}{2}+m\right)\text{AppellF1}\left[\frac{3}{2},\right.$$
$$\frac{7}{2}+m,\ -\frac{1}{2},\ \frac{5}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ -\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Bigg]$$
$$\left.\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\right)+$$
$$\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\left((c-d)\left(-\frac{1}{10(c+d)}3(c-d)\,\text{AppellF1}\left[\frac{5}{2},\ \frac{5}{2}+m,\right.\right.$$
$$\frac{3}{2},\ \frac{7}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ -\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Bigg]$$
$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]-$$
$$\frac{3}{5}\left(\frac{5}{2}+m\right)\text{AppellF1}\left[\frac{5}{2},\ \frac{7}{2}+m,\ \frac{1}{2},\ \frac{7}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$
$$\left.-\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Bigg]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2$$
$$\left.\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\right)-(c+d)\ (5+2m)\left(\frac{1}{10(c+d)}\right.$$
$$3(c-d)\,\text{AppellF1}\left[\frac{5}{2},\ \frac{7}{2}+m,\ \frac{1}{2},\ \frac{7}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$
$$\left.-\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Bigg]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right.$$
$$\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]-\frac{3}{5}\left(\frac{7}{2}+m\right)\text{AppellF1}\left[\frac{5}{2},\ \frac{9}{2}+m,\ -\frac{1}{2},\right.$$
$$\frac{7}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ -\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Bigg]$$
$$\left.\left.\left.\left.\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\right)\right)\right)\right)\Big/$$
$$\left(3(c+d)\,\text{AppellF1}\left[\frac{1}{2},\ \frac{5}{2}+m,\ -\frac{1}{2},\ \frac{3}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.\right.$$
$$\left.\left.-\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Bigg]+\left((c-d)\,\text{AppellF1}\left[\frac{3}{2},\ \frac{5}{2}+m,\ \frac{1}{2},\right.\right.\right.$$

$$\frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big] -$$
$$(c+d)\,(5+2m)\,\text{AppellF1}\Big[\frac{3}{2}, \frac{7}{2}+m, -\frac{1}{2}, \frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$
$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\Bigg)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg)^2 +$$

$$\Bigg(36\left(c^2 C + A d^2\right)\text{AppellF1}\Big[\frac{1}{2}, \frac{5}{2}+m, \frac{1}{2}, \frac{3}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$
$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\Bigg(\Bigg(\Bigg((c-d)\,\text{AppellF1}\Big[\frac{3}{2}, \frac{5}{2}+m, \frac{3}{2}, \frac{5}{2},$$
$$-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big] +$$
$$(c+d)\,(5+2m)\,\text{AppellF1}\Big[\frac{3}{2}, \frac{7}{2}+m, \frac{1}{2}, \frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$
$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\Bigg)\,\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2$$
$$\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right] - 3\,(c+d)\Bigg(-\frac{1}{6\,(c+d)}(c-d)\,\text{AppellF1}\Big[\frac{3}{2},$$
$$\frac{5}{2}+m, \frac{3}{2}, \frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]$$
$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right] - \frac{1}{3}\left(\frac{5}{2}+m\right)\text{AppellF1}\Big[\frac{3}{2},$$
$$\frac{7}{2}+m, \frac{1}{2}, \frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]$$
$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\Bigg) +$$

$$\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg((c-d)\Bigg(-\frac{1}{10\,(c+d)}9\,(c-d)\,\text{AppellF1}\Big[\frac{5}{2}, \frac{5}{2}+m,$$
$$\frac{5}{2}, \frac{7}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]$$
$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right] -$$
$$\frac{3}{5}\left(\frac{5}{2}+m\right)\text{AppellF1}\Big[\frac{5}{2}, \frac{7}{2}+m, \frac{3}{2}, \frac{7}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\,\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2$$

$$\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\Big)+(c+d)\,(5+2m)\left(-\frac{1}{10\,(c+d)}\right.$$

$$3\,(c-d)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{7}{2}+m,\,\frac{3}{2},\,\frac{7}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\,\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2$$

$$\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]-\frac{3}{5}\left(\frac{7}{2}+m\right)\text{AppellF1}\left[\frac{5}{2},\,\frac{9}{2}+m,\,\frac{1}{2},\right.$$

$$\left.\frac{7}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]$$

$$\left.\left.\left.\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\right)\right)\right)\Big/$$

$$\left(\left(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\right.$$

$$\left(-3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{5}{2}+m,\,\frac{1}{2},\,\frac{3}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.\right.$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]+\left((c-d)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\,\frac{3}{2},\right.\right.$$

$$\left.\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+$$

$$(c+d)\,(5+2m)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{7}{2}+m,\,\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$

$$\left.\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\Big)-$$

$$\left(5\,(A+C)\,(c-d)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\,-\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.\right.$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2$$

$$\left(\left((c-d)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{5}{2}+m,\,\frac{1}{2},\,\frac{7}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.\right.\right.$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]-(c+d)\,(5+2m)\,\text{AppellF1}\Big[\frac{5}{2},\frac{7}{2}+m,-\frac{1}{2},\frac{7}{2},-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\Bigg)$$

$$\text{Sec}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]+5\,(c+d)$$

$$\Bigg(\frac{1}{10\,(c+d)}3\,(c-d)\,\text{AppellF1}\Big[\frac{5}{2},\frac{5}{2}+m,\frac{1}{2},\frac{7}{2},-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\,\text{Sec}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2$$

$$\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]-\frac{3}{5}\left(\frac{5}{2}+m\right)\text{AppellF1}\Big[\frac{5}{2},\frac{7}{2}+m,-\frac{1}{2},\frac{7}{2},-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]$$

$$\text{Sec}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]\Bigg)+$$

$$\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2\Bigg((c-d)\,\Bigg(-\frac{1}{14\,(c+d)}5\,(c-d)\,\text{AppellF1}\Big[\frac{7}{2},\frac{5}{2}+m,\frac{3}{2},\frac{9}{2},-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]$$

$$\text{Sec}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]-\frac{5}{7}\left(\frac{5}{2}+m\right)\text{AppellF1}\Big[\frac{7}{2},\frac{7}{2}+m,\frac{1}{2},\frac{9}{2},-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\,\text{Sec}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2$$

$$\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]\Bigg)-(c+d)\,(5+2m)\,\Bigg(\frac{1}{14\,(c+d)}$$

$$5\,(c-d)\,\text{AppellF1}\Big[\frac{7}{2},\frac{7}{2}+m,\frac{1}{2},\frac{9}{2},-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\,\text{Sec}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2$$

$$\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]-\frac{5}{7}\left(\frac{7}{2}+m\right)\text{AppellF1}\Big[\frac{7}{2},\frac{9}{2}+m,-\frac{1}{2},\frac{9}{2},-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]$$

$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\Bigg)\Bigg)\Bigg)\Bigg)\Bigg/$$

$$\Bigg(5\,(c+d)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\,-\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\Bigg((c-d)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{5}{2}+m,\,\frac{1}{2},\right.$$

$$\left.\frac{7}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]-$$

$$(c+d)\,(5+2\,m)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{7}{2}+m,\,-\frac{1}{2},\,\frac{7}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$\left.\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)\Bigg)\Bigg)\Bigg)$$

Problem 14: Result more than twice size of optimal antiderivative.

$$\int\frac{(a+a\,\text{Sin}[e+f\,x])^m\,(A+C\,\text{Sin}[e+f\,x]^2)}{(c+d\,\text{Sin}[e+f\,x])^{3/2}}\,dx$$

Optimal (type 6, 413 leaves, 10 steps):

$$\frac{2\left(c^2 C + A d^2\right) \text{Cos}[e+f x] \left(a+a \text{Sin}[e+f x]\right)^m}{d\left(c^2-d^2\right) f \sqrt{c+d \text{Sin}[e+f x]}} +$$

$$\left(\sqrt{2}\left(c\left(A+C\right) d - d^2\left(A-C+4 A m\right) - 2 c^2\left(C+2 C m\right)\right)\right.$$

$$\text{AppellF1}\left[\frac{1}{2}+m, \frac{1}{2}, \frac{1}{2}, \frac{3}{2}+m, \frac{1}{2}\left(1+\text{Sin}[e+f x]\right), -\frac{d\left(1+\text{Sin}[e+f x]\right)}{c-d}\right]$$

$$\left.\text{Cos}[e+f x]\left(a+a \text{Sin}[e+f x]\right)^m \sqrt{\frac{c+d \text{Sin}[e+f x]}{c-d}}\right) /$$

$$\left(d\left(c^2-d^2\right) f\left(1+2 m\right) \sqrt{1-\text{Sin}[e+f x]}\ \sqrt{c+d \text{Sin}[e+f x]}\right) +$$

$$\left(\sqrt{2}\left(2 c^2 C\left(1+m\right) + d^2\left(A-C+2 A m\right)\right) \text{AppellF1}\left[\frac{3}{2}+m, \frac{1}{2}, \frac{1}{2}, \frac{5}{2}+m, \frac{1}{2}\left(1+\text{Sin}[e+f x]\right),\right.\right.$$

$$\left.\left.-\frac{d\left(1+\text{Sin}[e+f x]\right)}{c-d}\right] \text{Cos}[e+f x]\left(a+a \text{Sin}[e+f x]\right)^{1+m} \sqrt{\frac{c+d \text{Sin}[e+f x]}{c-d}}\right) /$$

$$\left(a d\left(c^2-d^2\right) f\left(3+2 m\right) \sqrt{1-\text{Sin}[e+f x]}\ \sqrt{c+d \text{Sin}[e+f x]}\right)$$

Result (type 6, 19675 leaves):

$$-\left(\left(6\left(c+d\right) \text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^{-1-2 m}\right.\right.$$

$$\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\left(a+a \text{Sin}[e+f x]\right)^m \left(-\frac{2 A \text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^{2 m}}{\left(c+d \text{Sin}[e+f x]\right)^{3/2}} -\right.$$

$$\left.\frac{C \text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^{2 m}}{\left(c+d \text{Sin}[e+f x]\right)^{3/2}} - \frac{C \text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^{2 m} \text{Cos}\left[2\left(-e+\frac{\pi}{2}-f x\right)\right]}{\left(c+d \text{Sin}[e+f x]\right)^{3/2}}\right)$$

$$\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^{-1-m} \sqrt{\frac{c+d+c \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 - d \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}}$$

$$\left(\left(\left(A+C\right) \text{AppellF1}\left[\frac{1}{2}, \frac{3}{2}+m, -\frac{1}{2}, \frac{3}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.\right.\right.$$

$$\left.\left.\left.-\frac{\left(c-d\right) \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\right) /$$

$$\left(3\left(c+d\right) \text{AppellF1}\left[\frac{1}{2}, \frac{3}{2}+m, -\frac{1}{2}, \frac{3}{2},\right.\right.$$

$$-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big] + \Bigg((c-d)\,\text{AppellF1}\Big[\frac{3}{2},$$

$$\frac{3}{2}+m, \frac{1}{2}, \frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big] -$$

$$(c+d)\,(3+2m)\,\text{AppellF1}\Big[\frac{3}{2}, \frac{5}{2}+m, -\frac{1}{2}, \frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\Bigg)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg) +$$

$$\frac{1}{\left(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^2}\,4\,\Bigg(\Bigg(\Bigg(c\,C\,\text{AppellF1}\Big[$$

$$\frac{1}{2}, \frac{3}{2}+m, \frac{1}{2}, \frac{3}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]$$

$$\left(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\Bigg)\Big/$$

$$\Bigg(-3\,(c+d)\,\text{AppellF1}\Big[\frac{1}{2}, \frac{3}{2}+m, \frac{1}{2}, \frac{3}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big] + \Bigg((c-d)\,\text{AppellF1}\Big[\frac{3}{2}, \frac{3}{2}+m, \frac{3}{2},$$

$$\frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big] +$$

$$(c+d)\,(3+2m)\,\text{AppellF1}\Big[\frac{3}{2}, \frac{5}{2}+m, \frac{1}{2}, \frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\Bigg)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg) + \Bigg(A\,d\,\text{AppellF1}\Big[$$

$$\frac{1}{2}, \frac{3}{2}+m, \frac{1}{2}, \frac{3}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]$$

$$\left(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\Bigg)\Big/$$

$$\Bigg(-3\,(c+d)\,\text{AppellF1}\Big[\frac{1}{2}, \frac{3}{2}+m, \frac{1}{2}, \frac{3}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big]+\Bigg((c-d)\,\text{AppellF1}\Big[\frac{3}{2},\,\frac{3}{2}+m,\,\frac{3}{2},$$

$$\frac{5}{2},\,-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big]+$$

$$(c+d)\,(3+2\,m)\,\text{AppellF1}\Big[\frac{3}{2},\,\frac{5}{2}+m,\,\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big]\Bigg)\,\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2\Bigg)-\Bigg(c^2\,C\,\text{AppellF1}\Big[$$

$$\frac{1}{2},\,\frac{3}{2}+m,\,\frac{3}{2},\,\frac{3}{2},\,-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big]\Bigg)\Big/$$

$$\Bigg(-3\,(c+d)\,\text{AppellF1}\Big[\frac{1}{2},\,\frac{3}{2}+m,\,\frac{3}{2},\,\frac{3}{2},\,-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big]+\Bigg(3\,(c-d)\,\text{AppellF1}\Big[\frac{3}{2},\,\frac{3}{2}+m,\,\frac{5}{2},$$

$$\frac{5}{2},\,-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big]+$$

$$(c+d)\,(3+2\,m)\,\text{AppellF1}\Big[\frac{3}{2},\,\frac{5}{2}+m,\,\frac{3}{2},\,\frac{5}{2},\,-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big]\Bigg)\,\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2\Bigg)-\Bigg(A\,d^2\,\text{AppellF1}\Big[$$

$$\frac{1}{2},\,\frac{3}{2}+m,\,\frac{3}{2},\,\frac{3}{2},\,-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big]\Bigg)\Big/$$

$$\Bigg(-3\,(c+d)\,\text{AppellF1}\Big[\frac{1}{2},\,\frac{3}{2}+m,\,\frac{3}{2},\,\frac{3}{2},\,-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big]+\Bigg(3\,(c-d)\,\text{AppellF1}\Big[\frac{3}{2},\,\frac{3}{2}+m,\,\frac{5}{2},$$

$$\frac{5}{2},\,-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big]+$$

$$(c+d)\,(3+2\,m)\,\text{AppellF1}\Big[\frac{3}{2},\,\frac{5}{2}+m,\,\frac{3}{2},\,\frac{5}{2},\,-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Bigg]\Bigg)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)\Bigg)\Bigg)\Bigg)\Bigg/$$

$$\Bigg((c-d)^2 f\Bigg(-\frac{1}{(c-d)^2}12\,(c+d)\,(-1-m)\,\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2$$

$$\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{-2-m}$$

$$\sqrt{\left(\left(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\Big/\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\right)}\Bigg(\Bigg((A+C)\,\text{AppellF1}\left[\frac{1}{2},\frac{3}{2}+m,-\frac{1}{2},\frac{3}{2},\right.$$

$$\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\Bigg)\Big/$$

$$\Bigg(3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\frac{3}{2}+m,-\frac{1}{2},\frac{3}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\Bigg((c-d)\,\text{AppellF1}\left[\frac{3}{2},\frac{3}{2}+m,\frac{1}{2},\right.$$

$$\left.\frac{5}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]-$$

$$(c+d)\,(3+2\,m)\,\text{AppellF1}\left[\frac{3}{2},\frac{5}{2}+m,-\frac{1}{2},\frac{5}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\Bigg)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2+$$

$$\left(1\Big/\left(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^2\right)$$

$$4\Bigg(\Bigg(c\,C\,\text{AppellF1}\left[\frac{1}{2},\frac{3}{2}+m,\frac{1}{2},\frac{3}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\left(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2-\right.$$

$$d \tan\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg)\Bigg/\Bigg(-3(c+d)\,\text{AppellF1}\left[\frac{1}{2},\frac{3}{2}+m,\frac{1}{2},\frac{3}{2},-\tan\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,-\frac{(c-d)\tan\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+\Bigg((c-d)\,\text{AppellF1}\left[\frac{3}{2},\frac{3}{2}+m,\frac{3}{2},\frac{5}{2},-\tan\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,-\frac{(c-d)\tan\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+(c+d)(3+2m)\,\text{AppellF1}\left[\frac{3}{2},\frac{5}{2}+m,\frac{1}{2},\frac{5}{2},-\tan\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,-\frac{(c-d)\tan\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\Bigg)\tan\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg)+\Bigg(A d\,\text{AppellF1}\left[\frac{1}{2},\frac{3}{2}+m,\frac{1}{2},\frac{3}{2},-\tan\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,-\frac{(c-d)\tan\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]$$

$$\left(c+d+c\tan\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2-d\tan\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\Bigg)\Bigg/$$

$$\Bigg(-3(c+d)\,\text{AppellF1}\left[\frac{1}{2},\frac{3}{2}+m,\frac{1}{2},\frac{3}{2},-\tan\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,-\frac{(c-d)\tan\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+\Bigg((c-d)\,\text{AppellF1}\left[\frac{3}{2},\frac{3}{2}+m,\frac{3}{2},\frac{5}{2},-\tan\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,-\frac{(c-d)\tan\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+(c+d)(3+2m)\,\text{AppellF1}\left[\frac{3}{2},\frac{5}{2}+m,\frac{1}{2},\frac{5}{2},-\tan\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,-\frac{(c-d)\tan\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\Bigg)\tan\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg)-$$

$$\Bigg(c^2 C\,\text{AppellF1}\left[\frac{1}{2},\frac{3}{2}+m,\frac{3}{2},\frac{3}{2},-\tan\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,-\frac{(c-d)\tan\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\Bigg)\Bigg/\Bigg(-3(c+d)\,\text{AppellF1}\left[\frac{1}{2},\frac{3}{2}+m,\right.$$

$$\frac{3}{2}, \frac{3}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big] +$$

$$\Bigg(3(c-d)\,\text{AppellF1}\Big[\frac{3}{2}, \frac{3}{2}+m, \frac{5}{2}, \frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big] + (c+d)\,(3+2m)\,\text{AppellF1}\Big[\frac{3}{2}, \frac{5}{2}+m,$$

$$\frac{3}{2}, \frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\Bigg)$$

$$\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg) - \Bigg(A d^2\,\text{AppellF1}\Big[\frac{1}{2}, \frac{3}{2}+m, \frac{3}{2}, \frac{3}{2},$$

$$-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\Bigg)\Big/$$

$$\Bigg(-3(c+d)\,\text{AppellF1}\Big[\frac{1}{2}, \frac{3}{2}+m, \frac{3}{2}, \frac{3}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big] + \Bigg(3(c-d)\,\text{AppellF1}\Big[\frac{3}{2}, \frac{3}{2}+m, \frac{5}{2},$$

$$\frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big] +$$

$$(c+d)\,(3+2m)\,\text{AppellF1}\Big[\frac{3}{2}, \frac{5}{2}+m, \frac{3}{2}, \frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\Bigg)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg)\Bigg)\Bigg) -$$

$$\frac{1}{(c-d)^2}\,6\,(c+d)\,\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^{-1-m}$$

$$\sqrt{\left(\frac{c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 - d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}\right)}$$

$$\Bigg(\Bigg((A+C)\,\text{AppellF1}\Big[\frac{1}{2}, \frac{3}{2}+m, -\frac{1}{2}, \frac{3}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\Bigg)\Big/$$

$$\left(3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{3}{2}+m,\,-\frac{1}{2},\,\frac{3}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\left(\left(c-d\right)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{3}{2}+m,\,\frac{1}{2},\right.\right.$$

$$\left.\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]-$$

$$(c+d)\,(3+2\,m)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\,-\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$\left.\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)+$$

$$\left(1\Big/\left(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^2\right)$$

$$4\left(\left(\left(c\,C\,\text{AppellF1}\left[\frac{1}{2},\,\frac{3}{2}+m,\,\frac{1}{2},\,\frac{3}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\left(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2-\right.$$

$$\left.\left.d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\Big/\left(-3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{3}{2}+m,\,\frac{1}{2},\right.\right.\right.$$

$$\left.\frac{3}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$

$$\left(\left(c-d\right)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{3}{2}+m,\,\frac{3}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+(c+d)\,(3+2\,m)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\right.$$

$$\left.\left.\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)$$

$$\left.\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)+\left(A\,d\,\text{AppellF1}\left[\frac{1}{2},\,\frac{3}{2}+m,\,\frac{1}{2},\,\frac{3}{2},\right.\right.$$

$$\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]$$

$$\left.\left.\left(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\right)\Big/\right.$$

$$\left(-3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{3}{2}+m,\,\frac{1}{2},\,\frac{3}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$
$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\left(\left(c-d\right)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{3}{2}+m,\,\frac{3}{2},\right.\right.$$
$$\left.\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$
$$(c+d)\,(3+2\,m)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\,\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$
$$\left.\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)-$$

$$\left(c^2\,C\,\text{AppellF1}\left[\frac{1}{2},\,\frac{3}{2}+m,\,\frac{3}{2},\,\frac{3}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$
$$\left.\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\Big/\left(-3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{3}{2}+m,\right.\right.$$
$$\left.\frac{3}{2},\,\frac{3}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$
$$\left(3\,(c-d)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{3}{2}+m,\,\frac{5}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$
$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+(c+d)\,(3+2\,m)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\right.$$
$$\left.\left.\frac{3}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)$$
$$\left.\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)-\left(A\,d^2\,\text{AppellF1}\left[\frac{1}{2},\,\frac{3}{2}+m,\,\frac{3}{2},\,\frac{3}{2},\right.\right.$$
$$\left.\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\Big/$$

$$\left(-3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{3}{2}+m,\,\frac{3}{2},\,\frac{3}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$
$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\left(3\,(c-d)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{3}{2}+m,\,\frac{5}{2},\right.\right.$$

$$\frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big] +$$
$$(c+d)\,(3+2m)\,\text{AppellF1}\Big[\frac{3}{2}, \frac{5}{2}+m, \frac{3}{2}, \frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$
$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg)\Bigg)\Bigg) -$$

$$\frac{1}{(c-d)^2\sqrt{\frac{c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}}}\,6\,(c+d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]$$
$$\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^{-1-m}$$
$$\Bigg(\Bigg(c\,\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right] -$$
$$d\,\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\Bigg)\Big/\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right) -$$
$$\Bigg(\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\,\Bigg(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 -$$
$$d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg)\Big/\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^2\Bigg)$$
$$\Bigg(\Bigg((A+C)\,\text{AppellF1}\Big[\frac{1}{2}, \frac{3}{2}+m, -\frac{1}{2}, \frac{3}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$
$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\Bigg)\Big/$$
$$\Bigg(3\,(c+d)\,\text{AppellF1}\Big[\frac{1}{2}, \frac{3}{2}+m, -\frac{1}{2}, \frac{3}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$
$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big] + \Bigg((c-d)\,\text{AppellF1}\Big[\frac{3}{2}, \frac{3}{2}+m, \frac{1}{2},$$
$$\frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big] -$$
$$(c+d)\,(3+2m)\,\text{AppellF1}\Big[\frac{3}{2}, \frac{5}{2}+m, -\frac{1}{2}, \frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$
$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg) +$$
$$\Bigg(1\Big/\left(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^2\Bigg)$$

$$4\left(\left(\left(c\,C\,\text{AppellF1}\left[\frac{1}{2},\frac{3}{2}+m,\frac{1}{2},\frac{3}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\left(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\right)\Big/\left(-3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\frac{3}{2}+m,\frac{1}{2},\frac{3}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\left((c-d)\,\text{AppellF1}\left[\frac{3}{2},\frac{3}{2}+m,\frac{3}{2},\frac{5}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+(c+d)\,(3+2\,m)\,\text{AppellF1}\left[\frac{3}{2},\frac{5}{2}+m,\frac{1}{2},\frac{5}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)+\left(A\,d\,\text{AppellF1}\left[\frac{1}{2},\frac{3}{2}+m,\frac{1}{2},\frac{3}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\left(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\right)\Big/\left(-3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\frac{3}{2}+m,\frac{1}{2},\frac{3}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\left((c-d)\,\text{AppellF1}\left[\frac{3}{2},\frac{3}{2}+m,\frac{3}{2},\frac{5}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+(c+d)\,(3+2\,m)\,\text{AppellF1}\left[\frac{3}{2},\frac{5}{2}+m,\frac{1}{2},\frac{5}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)-$$

$$\left(c^2\, C\, \text{AppellF1}\left[\frac{1}{2},\ \frac{3}{2}+m,\ \frac{3}{2},\ \frac{3}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.\right.$$
$$\left.-\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\Bigg)\Bigg/\Bigg(-3\,(c+d)\ \text{AppellF1}\left[\frac{1}{2},\ \frac{3}{2}+m,\right.$$
$$\frac{3}{2},\ \frac{3}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ -\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Bigg]+$$
$$\Bigg(3\,(c-d)\ \text{AppellF1}\left[\frac{3}{2},\ \frac{3}{2}+m,\ \frac{5}{2},\ \frac{5}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$
$$\left.-\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+(c+d)\ (3+2m)\ \text{AppellF1}\left[\frac{3}{2},\ \frac{5}{2}+m,$$
$$\left.\frac{3}{2},\ \frac{5}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ -\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\Bigg)$$
$$\left.\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)-\Bigg(A\,d^2\,\text{AppellF1}\left[\frac{1}{2},\ \frac{3}{2}+m,\ \frac{3}{2},\ \frac{3}{2},\right.$$
$$\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ -\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\Bigg)\Bigg/$$
$$\Bigg(-3\,(c+d)\ \text{AppellF1}\left[\frac{1}{2},\ \frac{3}{2}+m,\ \frac{3}{2},\ \frac{3}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$
$$\left.-\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+\Bigg(3\,(c-d)\ \text{AppellF1}\left[\frac{3}{2},\ \frac{3}{2}+m,\ \frac{5}{2},\right.$$
$$\left.\frac{5}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ -\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+$$
$$(c+d)\ (3+2m)\ \text{AppellF1}\left[\frac{3}{2},\ \frac{5}{2}+m,\ \frac{3}{2},\ \frac{5}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$
$$\left.\left.\left.-\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\right)\Bigg)-$$
$$\frac{1}{(c-d)^2}\,12\,(c+d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^{-1-m}$$
$$\sqrt{\left(\frac{c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}\right)}$$

$$\left(\left(\left(A+C\right)\left(\frac{1}{6\left(c+d\right)}\left(c-d\right)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{3}{2}+m,\,\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.\right.$$

$$\left.-\frac{\left(c-d\right)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\,\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2$$

$$\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]-\frac{1}{3}\left(\frac{3}{2}+m\right)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\,-\frac{1}{2},\,\frac{5}{2},\right.$$

$$\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{\left(c-d\right)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]$$

$$\left.\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\right)\Bigg)\Bigg/$$

$$\left(3\left(c+d\right)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{3}{2}+m,\,-\frac{1}{2},\,\frac{3}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\left.-\frac{\left(c-d\right)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\left(\left(c-d\right)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{3}{2}+m,\,\frac{1}{2},\right.\right.$$

$$\left.\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{\left(c-d\right)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]-$$

$$\left(c+d\right)\,\left(3+2\,m\right)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\,-\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$\left.\left.-\frac{\left(c-d\right)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)-$$

$$\left(1\Big/\left(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^3\right)$$

$$8\left(c\,\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]-d\right.$$

$$\left.\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\right)$$

$$\left(\left(\left(c\,C\,\text{AppellF1}\left[\frac{1}{2},\,\frac{3}{2}+m,\,\frac{1}{2},\,\frac{3}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.\right.\right.$$

$$\left.\left.-\frac{\left(c-d\right)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\,\left(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2-\right.\right.$$

$$\left.\left.d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\Bigg)\Bigg/\left(-3\left(c+d\right)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{3}{2}+m,\,\frac{1}{2},\right.\right.\right.$$

$$\left.\left.\frac{3}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{\left(c-d\right)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\right.$$

$$\left(\left(c-d\right)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{3}{2}+m,\,\frac{3}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\left.-\frac{\left(c-d\right)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\left(c+d\right)\,\left(3+2\,m\right)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\right.$$

$$\left.\left.\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{\left(c-d\right)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)$$

$$\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)+\Bigg(A\,d\,\text{AppellF1}\left[\frac{1}{2},\,\frac{3}{2}+m,\,\frac{1}{2},\,\frac{3}{2},\right.$$

$$\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{\left(c-d\right)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]$$

$$\left.\left(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\right)\Big/$$

$$\left(-3\,\left(c+d\right)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{3}{2}+m,\,\frac{1}{2},\,\frac{3}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\left.-\frac{\left(c-d\right)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\Bigg(\left(c-d\right)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{3}{2}+m,\,\frac{3}{2},\right.$$

$$\left.\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{\left(c-d\right)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$

$$\left(c+d\right)\,\left(3+2\,m\right)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\,\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$\left.\left.-\frac{\left(c-d\right)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)-$$

$$\left(c^2\,C\,\text{AppellF1}\left[\frac{1}{2},\,\frac{3}{2}+m,\,\frac{3}{2},\,\frac{3}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\left.-\frac{\left(c-d\right)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\Bigg)\Big/\Bigg(-3\,\left(c+d\right)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{3}{2}+m,\right.$$

$$\left.\frac{3}{2},\,\frac{3}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{\left(c-d\right)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$

$$\left(3\,\left(c-d\right)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{3}{2}+m,\,\frac{5}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big] + (c+d)\,(3+2\,m)\,\text{AppellF1}\Big[\frac{3}{2},\,\frac{5}{2}+m,$$

$$\frac{3}{2},\,\frac{5}{2},\,-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big]\Bigg)$$

$$\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2\Bigg) - \Bigg(A\,d^2\,\text{AppellF1}\Big[\frac{1}{2},\,\frac{3}{2}+m,\,\frac{3}{2},\,\frac{3}{2},$$

$$-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big]\Bigg)\Big/$$

$$\Bigg(-3\,(c+d)\,\text{AppellF1}\Big[\frac{1}{2},\,\frac{3}{2}+m,\,\frac{3}{2},\,\frac{3}{2},\,-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big] + \Bigg(3\,(c-d)\,\text{AppellF1}\Big[\frac{3}{2},\,\frac{3}{2}+m,\,\frac{5}{2},$$

$$\frac{5}{2},\,-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big] +$$

$$(c+d)\,(3+2\,m)\,\text{AppellF1}\Big[\frac{3}{2},\,\frac{5}{2}+m,\,\frac{3}{2},\,\frac{5}{2},\,-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big]\Bigg)\,\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2\Bigg)\Bigg) -$$

$$\Bigg((A+C)\,\text{AppellF1}\Big[\frac{1}{2},\,\frac{3}{2}+m,\,-\frac{1}{2},\,\frac{3}{2},\,-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big]$$

$$\Bigg(\Bigg(\Bigg((c-d)\,\text{AppellF1}\Big[\frac{3}{2},\,\frac{3}{2}+m,\,\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big] - (c+d)\,(3+2\,m)\,\text{AppellF1}\Big[\frac{3}{2},\,\frac{5}{2}+m,$$

$$-\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big]\Bigg)$$

$$\text{Sec}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2\,\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big] + 3\,(c+d)$$

$$\left(\frac{1}{6\,(c+d)}(c-d)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{3}{2}+m,\,\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$
$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2$$
$$\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]-\frac{1}{3}\left(\frac{3}{2}+m\right)\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\,-\frac{1}{2},\,\frac{5}{2},\right.$$
$$\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]$$
$$\left.\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\right)+$$
$$\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\left((c-d)\left(-\frac{1}{10\,(c+d)}3\,(c-d)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{3}{2}+m,\right.\right.\right.$$
$$\left.\frac{3}{2},\,\frac{7}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]$$
$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]-$$
$$\frac{3}{5}\left(\frac{3}{2}+m\right)\text{AppellF1}\left[\frac{5}{2},\,\frac{5}{2}+m,\,\frac{1}{2},\,\frac{7}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$
$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2$$
$$\left.\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\right)-(c+d)\,(3+2\,m)\left(\frac{1}{10\,(c+d)}\right.$$
$$3\,(c-d)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{5}{2}+m,\,\frac{1}{2},\,\frac{7}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$
$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2$$
$$\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]-\frac{3}{5}\left(\frac{5}{2}+m\right)\text{AppellF1}\left[\frac{5}{2},\,\frac{7}{2}+m,\,-\frac{1}{2},\right.$$
$$\left.\frac{7}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]$$
$$\left.\left.\left.\left.\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\right)\right)\right)\right)\Big/$$
$$\left(3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{3}{2}+m,\,-\frac{1}{2},\,\frac{3}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big] + \Bigg((c-d)\,\text{AppellF1}\Big[\frac{3}{2},\,\frac{3}{2}+m,\,\frac{1}{2},$$

$$\frac{5}{2},\,-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big] -$$

$$(c+d)\,(3+2m)\,\text{AppellF1}\Big[\frac{3}{2},\,\frac{5}{2}+m,\,-\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\Bigg)\,\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2\Bigg)^2 +$$

$$\left(1\Big/\left(c+d+c\,\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2-d\,\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2\right)^2\right)$$

$$4\Bigg(\Bigg(c\,C\,\text{AppellF1}\Big[\frac{1}{2},\,\frac{3}{2}+m,\,\frac{1}{2},\,\frac{3}{2},\,-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\,\Big(c\,\text{Sec}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2\,\text{Tan}\Big[$$

$$\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]-d\,\text{Sec}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2\,\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]\Big)\Bigg)\Big/$$

$$\Bigg(-3\,(c+d)\,\text{AppellF1}\Big[\frac{1}{2},\,\frac{3}{2}+m,\,\frac{1}{2},\,\frac{3}{2},\,-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big] + \Bigg((c-d)\,\text{AppellF1}\Big[\frac{3}{2},\,\frac{3}{2}+m,\,\frac{3}{2},$$

$$\frac{5}{2},\,-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big] +$$

$$(c+d)\,(3+2m)\,\text{AppellF1}\Big[\frac{3}{2},\,\frac{5}{2}+m,\,\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\Bigg)\,\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2\Bigg) +$$

$$\Bigg(A\,d\,\text{AppellF1}\Big[\frac{1}{2},\,\frac{3}{2}+m,\,\frac{1}{2},\,\frac{3}{2},\,-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\,\Big(c\,\text{Sec}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2\,\text{Tan}\Big[$$

$$\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]-d\,\text{Sec}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2\,\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]\Big)\Bigg)\Big/$$

$$\left(-3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{3}{2}+m,\,\frac{1}{2},\,\frac{3}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\left(\left(c-d\right)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{3}{2}+m,\,\frac{3}{2},\right.\right.$$

$$\left.\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$

$$(c+d)\,(3+2\,m)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\,\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$\left.\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)+$$

$$\left(c\,C\left(-\frac{1}{6\,(c+d)}\,(c-d)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{3}{2}+m,\,\frac{3}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2$$

$$\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]-\frac{1}{3}\left(\frac{3}{2}+m\right)\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\,\frac{1}{2},\,\frac{5}{2},\right.$$

$$\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]$$

$$\left.\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\right)$$

$$\left.\left(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\right)\Big/$$

$$\left(-3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{3}{2}+m,\,\frac{1}{2},\,\frac{3}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\left(\left(c-d\right)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{3}{2}+m,\,\frac{3}{2},\right.\right.$$

$$\left.\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$

$$(c+d)\,(3+2\,m)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\,\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$\left.\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)+$$

$$\left(A\,d\left(-\frac{1}{6\,(c+d)}(c-d)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{3}{2}+m,\,\frac{3}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2$$

$$\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]-\frac{1}{3}\left(\frac{3}{2}+m\right)\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\,\frac{1}{2},\,\frac{5}{2},\right.$$

$$\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]$$

$$\left.\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\right)$$

$$\left.\left(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\right)\Big/$$

$$\left(-3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{3}{2}+m,\,\frac{1}{2},\,\frac{3}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\left((c-d)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{3}{2}+m,\,\frac{3}{2},\right.\right.$$

$$\left.\left.\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\right.$$

$$(c+d)\,(3+2\,m)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\,\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$\left.\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)-$$

$$\left(c^2\,C\left(-\frac{1}{2\,(c+d)}(c-d)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{3}{2}+m,\,\frac{5}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2$$

$$\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]-\frac{1}{3}\left(\frac{3}{2}+m\right)\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\,\frac{3}{2},\,\frac{5}{2},\right.$$

$$\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]$$

$$\left.\left.\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\right)\right)\Big/$$

$$\left(-3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{3}{2}+m,\,\frac{3}{2},\,\frac{3}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$
$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\left(3\,(c-d)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{3}{2}+m,\,\frac{5}{2},\right.\right.$$
$$\left.\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$
$$(c+d)\,(3+2\,m)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\,\frac{3}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$
$$\left.\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)-$$

$$\left(A\,d^2\left(-\frac{1}{2\,(c+d)}(c-d)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{3}{2}+m,\,\frac{5}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$
$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2$$
$$\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]-\frac{1}{3}\left(\frac{3}{2}+m\right)\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\,\frac{3}{2},\,\frac{5}{2},\right.$$
$$\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]$$
$$\left.\left.\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\right)\right)\Bigg/$$

$$\left(-3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{3}{2}+m,\,\frac{3}{2},\,\frac{3}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$
$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\left(3\,(c-d)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{3}{2}+m,\,\frac{5}{2},\right.\right.$$
$$\left.\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$
$$(c+d)\,(3+2\,m)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\,\frac{3}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$
$$\left.\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)-$$

$$\left(c\,C\,\text{AppellF1}\left[\frac{1}{2},\,\frac{3}{2}+m,\,\frac{1}{2},\,\frac{3}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\left(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\left(\left(\left((c-d)\,\text{AppellF1}\left[\frac{3}{2},\frac{3}{2}+m,\frac{3}{2},\frac{5}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+(c+d)\,(3+2m)\,\text{AppellF1}\left[\frac{3}{2},\frac{5}{2}+m,\frac{1}{2},\frac{5}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\right)\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]-3\,(c+d)\left(-\frac{1}{6\,(c+d)}(c-d)\,\text{AppellF1}\left[\frac{3}{2},\frac{3}{2}+m,\frac{3}{2},\frac{5}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]-\frac{1}{3}\left(\frac{3}{2}+m\right)\text{AppellF1}\left[\frac{3}{2},\frac{5}{2}+m,\frac{1}{2},\frac{5}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\right)+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\left((c-d)\left(-\left(\left(\left(9\,(c-d)\,\text{AppellF1}\left[\frac{5}{2},\frac{3}{2}+m,\frac{5}{2},\frac{7}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\right)\Big/(10\,(c+d))\right)-\frac{3}{5}\left(\frac{3}{2}+m\right)\text{AppellF1}\left[\frac{5}{2},\frac{5}{2}+m,\frac{3}{2},\frac{7}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]$$

$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\Bigg) +$$

$$(c+d)\ (3+2m)\ \Bigg(-\Bigg(\Bigg(3\ (c-d)\ \text{AppellF1}\left[\frac{5}{2}, \frac{5}{2}+m, \frac{3}{2}, \frac{7}{2},\right.$$

$$\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]$$

$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\Bigg) \Big/$$

$$(10\ (c+d))\Bigg) - \frac{3}{5}\left(\frac{5}{2}+m\right) \text{AppellF1}\left[\frac{5}{2}, \frac{7}{2}+m, \frac{1}{2}, \frac{7}{2},\right.$$

$$\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]$$

$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\Bigg)\Bigg)\Bigg)\Bigg) \Big/$$

$$\Bigg(-3\ (c+d)\ \text{AppellF1}\left[\frac{1}{2}, \frac{3}{2}+m, \frac{1}{2}, \frac{3}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$

$$\left.-\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right] + \Bigg((c-d)\ \text{AppellF1}\left[\frac{3}{2}, \frac{3}{2}+m, \frac{3}{2},\right.$$

$$\left.\frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right] +$$

$$(c+d)\ (3+2m)\ \text{AppellF1}\left[\frac{3}{2}, \frac{5}{2}+m, \frac{1}{2}, \frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$

$$\left.-\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\Bigg) \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg)^2 -$$

$$\Bigg(A\,d\,\text{AppellF1}\left[\frac{1}{2}, \frac{3}{2}+m, \frac{1}{2}, \frac{3}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$

$$\left.-\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\ \left(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 -\right.$$

$$\left.d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\ \Bigg(\Bigg((c-d)\ \text{AppellF1}\left[\frac{3}{2}, \frac{3}{2}+m, \frac{3}{2}, \frac{5}{2},\right.$$

$$-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big] +$$
$$(c+d)\,(3+2m)\,\text{AppellF1}\Big[\frac{3}{2}, \frac{5}{2}+m, \frac{1}{2}, \frac{5}{2},$$
$$-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\Bigg)$$
$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right] - 3\,(c+d)$$
$$\Bigg(-\frac{1}{6\,(c+d)}(c-d)\,\text{AppellF1}\Big[\frac{3}{2}, \frac{3}{2}+m, \frac{3}{2}, \frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$
$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\,\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2$$
$$\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right] - \frac{1}{3}\left(\frac{3}{2}+m\right)\text{AppellF1}\Big[\frac{3}{2}, \frac{5}{2}+m, \frac{1}{2},$$
$$\frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]$$
$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\Bigg) +$$
$$\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \Bigg((c-d)\Bigg(-\Bigg(\Bigg(9\,(c-d)\,\text{AppellF1}\Big[\frac{5}{2}, \frac{3}{2}+m, \frac{5}{2}, \frac{7}{2},$$
$$-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]$$
$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\Bigg)\Big/$$
$$(10\,(c+d))\Bigg) - \frac{3}{5}\left(\frac{3}{2}+m\right)\text{AppellF1}\Big[\frac{5}{2}, \frac{5}{2}+m, \frac{3}{2}, \frac{7}{2},$$
$$-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]$$
$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\Bigg) +$$
$$(c+d)\,(3+2m)\Bigg(-\Bigg(\Bigg(3\,(c-d)\,\text{AppellF1}\Big[\frac{5}{2}, \frac{5}{2}+m, \frac{3}{2}, \frac{7}{2},$$

$$-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ -\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]$$

$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\Bigg)\Big/$$

$$\left(10\ (c+d)\right)\Bigg) - \frac{3}{5}\left(\frac{5}{2}+m\right)\text{AppellF1}\left[\frac{5}{2},\ \frac{7}{2}+m,\ \frac{1}{2},\ \frac{7}{2},\right.$$

$$-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ -\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]$$

$$\left.\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\Bigg)\Bigg)\Bigg)\Bigg)\Big/\right.$$

$$\Bigg(-3\ (c+d)\ \text{AppellF1}\left[\frac{1}{2},\ \frac{3}{2}+m,\ \frac{1}{2},\ \frac{3}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$

$$\left.-\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right] + \Bigg((c-d)\ \text{AppellF1}\left[\frac{3}{2},\ \frac{3}{2}+m,\ \frac{3}{2},\right.$$

$$\left.\frac{5}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ -\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right] +$$

$$(c+d)\ (3+2m)\ \text{AppellF1}\left[\frac{3}{2},\ \frac{5}{2}+m,\ \frac{1}{2},\ \frac{5}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$

$$\left.-\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\Bigg)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg) +$$

$$\Bigg(c^2\,C\,\text{AppellF1}\left[\frac{1}{2},\ \frac{3}{2}+m,\ \frac{3}{2},\ \frac{3}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$

$$\left.-\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\Bigg(\Bigg(\Bigg(3\ (c-d)\ \text{AppellF1}\left[\frac{3}{2},\ \frac{3}{2}+m,\ \frac{5}{2},\ \frac{5}{2},\right.$$

$$\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ -\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right] +$$

$$(c+d)\ (3+2m)\ \text{AppellF1}\left[\frac{3}{2},\ \frac{5}{2}+m,\ \frac{3}{2},\ \frac{5}{2},\right.$$

$$\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ -\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\Bigg)$$

$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right] - 3\ (c+d)$$

$$\left(-\frac{1}{2\,(c+d)}(c-d)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{3}{2}+m,\,\frac{5}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2$$

$$\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]-\frac{1}{3}\left(\frac{3}{2}+m\right)\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\,\frac{3}{2},\right.$$

$$\left.\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]$$

$$\left.\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\right)+$$

$$\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\left(3\,(c-d)\left(-\frac{1}{2\,(c+d)}3\,(c-d)\right.\right.$$

$$\text{AppellF1}\left[\frac{5}{2},\,\frac{3}{2}+m,\,\frac{7}{2},\,\frac{7}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2$$

$$\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]-\frac{3}{5}\left(\frac{3}{2}+m\right)\text{AppellF1}\left[\frac{5}{2},\,\frac{5}{2}+m,\,\frac{5}{2},\right.$$

$$\left.\frac{7}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]$$

$$\left.\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\right)+$$

$$(c+d)\,(3+2\,m)\left(-\left(\left(\left(9\,(c-d)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{5}{2}+m,\,\frac{5}{2},\,\frac{7}{2},\right.\right.\right.\right.$$

$$\left.\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]$$

$$\left.\left.\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\right)\Big/$$

$$\left.\left.(10\,(c+d))\right)-\frac{3}{5}\left(\frac{5}{2}+m\right)\text{AppellF1}\left[\frac{5}{2},\,\frac{7}{2}+m,\,\frac{3}{2},\,\frac{7}{2},\right.\right.$$

$$\left.\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right.$$

$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\Bigg)\Bigg)\Bigg)\Bigg)\Bigg) \Big/$$

$$\Bigg(-3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\frac{3}{2}+m,\frac{3}{2},\frac{3}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+\Bigg(3\,(c-d)\,\text{AppellF1}\left[\frac{3}{2},\frac{3}{2}+m,\frac{5}{2},\right.$$

$$\left.\frac{5}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+$$

$$(c+d)\,(3+2 m)\,\text{AppellF1}\left[\frac{3}{2},\frac{5}{2}+m,\frac{3}{2},\frac{5}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$

$$\left.\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg)^2+$$

$$\Bigg(A\,d^2\,\text{AppellF1}\left[\frac{1}{2},\frac{3}{2}+m,\frac{3}{2},\frac{3}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\Bigg(\Bigg(3\,(c-d)\,\text{AppellF1}\left[\frac{3}{2},\frac{3}{2}+m,\frac{5}{2},\frac{5}{2},\right.$$

$$\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+$$

$$(c+d)\,(3+2 m)\,\text{AppellF1}\left[\frac{3}{2},\frac{5}{2}+m,\frac{3}{2},\frac{5}{2},\right.$$

$$\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\Bigg)$$

$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]-3\,(c+d)$$

$$\Bigg(-\frac{1}{2\,(c+d)}(c-d)\,\text{AppellF1}\left[\frac{3}{2},\frac{3}{2}+m,\frac{5}{2},\frac{5}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2$$

$$\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]-\frac{1}{3}\left(\frac{3}{2}+m\right)\text{AppellF1}\left[\frac{3}{2},\frac{5}{2}+m,\frac{3}{2},\right.$$

$$\left.\frac{5}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]$$

$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\Bigg) +$$

$$\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \Bigg(3\,(c-d)\,\Bigg(-\frac{1}{2\,(c+d)}3\,(c-d)$$

$$\text{AppellF1}\left[\frac{5}{2},\frac{3}{2}+m,\frac{7}{2},\frac{7}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2$$

$$\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]-\frac{3}{5}\left(\frac{3}{2}+m\right)\text{AppellF1}\left[\frac{5}{2},\frac{5}{2}+m,\frac{5}{2},\right.$$

$$\left.\frac{7}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]$$

$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\Bigg) +$$

$$(c+d)\,(3+2m)\,\Bigg(-\Bigg(\Bigg(9\,(c-d)\,\text{AppellF1}\left[\frac{5}{2},\frac{5}{2}+m,\frac{5}{2},\frac{7}{2},\right.$$

$$\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]$$

$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\Bigg)\Bigg/$$

$$(10\,(c+d))\Bigg)-\frac{3}{5}\left(\frac{5}{2}+m\right)\text{AppellF1}\left[\frac{5}{2},\frac{7}{2}+m,\frac{3}{2},\frac{7}{2},\right.$$

$$\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]$$

$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\Bigg)\Bigg)\Bigg)\Bigg)\Bigg/$$

$$\Bigg(-3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\frac{3}{2}+m,\frac{3}{2},\frac{3}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+\Bigg(3\,(c-d)\,\text{AppellF1}\left[\frac{3}{2},\frac{3}{2}+m,\frac{5}{2},\right.$$

$$\left.\frac{5}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+$$

$$(c+d)\,(3+2m)\,\text{AppellF1}\left[\frac{3}{2},\ \frac{5}{2}+m,\ \frac{3}{2},\ \frac{5}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2,\right.$$

$$\left.\left.\left.\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2}{c+d}\right]\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2\right)\right)\right)\right)$$

Problem 15: Result more than twice size of optimal antiderivative.

$$\int\frac{(a+a\,\text{Sin}[e+fx])^m\,(A+C\,\text{Sin}[e+fx]^2)}{(c+d\,\text{Sin}[e+fx])^{5/2}}\,dx$$

Optimal (type 6, 424 leaves, 10 steps):

$$\frac{2\,(c^2C+Ad^2)\,\text{Cos}[e+fx]\,(a+a\,\text{Sin}[e+fx])^m}{3d\,(c^2-d^2)\,f\,(c+d\,\text{Sin}[e+fx])^{3/2}}+$$

$$\left(\sqrt{2}\,\left(3c\,(A+C)\,d+d^2\,(A+3C-4Am)-2c^2\,(C+2Cm)\right)\right.$$

$$\text{AppellF1}\left[\frac{1}{2}+m,\ \frac{1}{2},\ \frac{3}{2},\ \frac{3}{2}+m,\ \frac{1}{2}\,(1+\text{Sin}[e+fx]),\ -\frac{d\,(1+\text{Sin}[e+fx])}{c-d}\right]$$

$$\left.\text{Cos}[e+fx]\,(a+a\,\text{Sin}[e+fx])^m\sqrt{\frac{c+d\,\text{Sin}[e+fx]}{c-d}}\right)\Big/$$

$$\left(3\,(c-d)^2\,d\,(c+d)\,f\,(1+2m)\,\sqrt{1-\text{Sin}[e+fx]}\,\sqrt{c+d\,\text{Sin}[e+fx]}\right)+$$

$$\left(\sqrt{2}\,\left(2c^2C\,(1+m)-d^2\,(A+3C-2Am)\right)\,\text{AppellF1}\left[\frac{3}{2}+m,\ \frac{1}{2},\ \frac{3}{2},\ \frac{5}{2}+m,\ \frac{1}{2}\,(1+\text{Sin}[e+fx]),\right.\right.$$

$$\left.\left.-\frac{d\,(1+\text{Sin}[e+fx])}{c-d}\right]\text{Cos}[e+fx]\,(a+a\,\text{Sin}[e+fx])^{1+m}\sqrt{\frac{c+d\,\text{Sin}[e+fx]}{c-d}}\right)\Big/$$

$$\left(3a\,(c-d)^2\,d\,(c+d)\,f\,(3+2m)\,\sqrt{1-\text{Sin}[e+fx]}\,\sqrt{c+d\,\text{Sin}[e+fx]}\right)$$

Result (type 6, 25 117 leaves): Display of huge result suppressed!

Problem 17: Result unnecessarily involves higher level functions and more than twice size of optimal antiderivative.

$$\int(a+a\,\text{Sin}[e+fx])^m\,(c-c\,\text{Sin}[e+fx])^n\,(A+B\,\text{Sin}[e+fx]+C\,\text{Sin}[e+fx]^2)\,dx$$

Optimal (type 5, 269 leaves, 6 steps):

$$\left(2^{\frac{1}{2}+n}\, c\, \left((1+m+n)\, \left(C\, (1-m+n)+A\, (2+m+n)\right)+(m-n)\, \left(C+2\, C\, m+B\, (2+m+n)\right)\right) \text{Cos}[e+f\, x]\right.$$
$$\text{Hypergeometric2F1}\left[\frac{1}{2}\, (1+2\, m),\ \frac{1}{2}\, (1-2\, n),\ \frac{1}{2}\, (3+2\, m),\ \frac{1}{2}\, (1+\text{Sin}[e+f\, x])\right]$$
$$\left.(1-\text{Sin}[e+f\, x])^{\frac{1}{2}-n}\, (a+a\, \text{Sin}[e+f\, x])^{m}\, (c-c\, \text{Sin}[e+f\, x])^{-1+n}\right) \Big/$$
$$\left(f\, (1+2\, m)\, (1+m+n)\, (2+m+n)\right)-$$
$$\left(\left(C+2\, C\, m+B\, (2+m+n)\right) \text{Cos}[e+f\, x]\, (a+a\, \text{Sin}[e+f\, x])^{m}\, (c-c\, \text{Sin}[e+f\, x])^{n}\right) \Big/$$
$$\left(f\, (1+m+n)\, (2+m+n)\right)+$$
$$\frac{C\, \text{Cos}[e+f\, x]\, (a+a\, \text{Sin}[e+f\, x])^{m}\, (c-c\, \text{Sin}[e+f\, x])^{1+n}}{c\, f\, (2+m+n)}$$

Result (type 6, 38 254 leaves) : Display of huge result suppressed!

Problem 18: Result unnecessarily involves complex numbers and more than twice size of optimal antiderivative.

$$\int (a+a\, \text{Sin}[e+f\, x])^{m}\, (c-c\, \text{Sin}[e+f\, x])^{5/2}\, \left(A+B\, \text{Sin}[e+f\, x]+C\, \text{Sin}[e+f\, x]^{2}\right) \mathbb{d}x$$

Optimal (type 3, 435 leaves, 5 steps) :

$$-\left(\left(64\, c^{3}\, \left(B\, \left(45-8\, m-4\, m^{2}\right)-C\, \left(39-16\, m+4\, m^{2}\right)-A\, \left(63+32\, m+4\, m^{2}\right)\right) \text{Cos}[e+f\, x]\right.\right.$$
$$\left.\left.(a+a\, \text{Sin}[e+f\, x])^{m}\right) \Big/ \left(f\, (5+2\, m)\, (7+2\, m)\, (9+2\, m)\, \left(3+8\, m+4\, m^{2}\right) \sqrt{c-c\, \text{Sin}[e+f\, x]}\right)\right)-$$
$$\left(16\, c^{2}\, \left(B\, \left(45-8\, m-4\, m^{2}\right)-C\, \left(39-16\, m+4\, m^{2}\right)-A\, \left(63+32\, m+4\, m^{2}\right)\right) \text{Cos}[e+f\, x]\right.$$
$$\left.(a+a\, \text{Sin}[e+f\, x])^{m}\, \sqrt{c-c\, \text{Sin}[e+f\, x]}\right) \Big/ \left(f\, (7+2\, m)\, (9+2\, m)\, \left(15+16\, m+4\, m^{2}\right)\right)-$$
$$\left(2\, c\, \left(B\, \left(45-8\, m-4\, m^{2}\right)-C\, \left(39-16\, m+4\, m^{2}\right)-A\, \left(63+32\, m+4\, m^{2}\right)\right) \text{Cos}[e+f\, x]\right.$$
$$\left.(a+a\, \text{Sin}[e+f\, x])^{m}\, (c-c\, \text{Sin}[e+f\, x])^{3/2}\right) \Big/ \left(f\, (5+2\, m)\, (7+2\, m)\, (9+2\, m)\right)-$$
$$\left(2\, \left(9\, B+2\, C+2\, B\, m+4\, C\, m\right) \text{Cos}[e+f\, x]\, (a+a\, \text{Sin}[e+f\, x])^{m}\, (c-c\, \text{Sin}[e+f\, x])^{5/2}\right) \Big/$$
$$\left(f\, (7+2\, m)\, (9+2\, m)\right)+$$
$$\frac{2\, C\, \text{Cos}[e+f\, x]\, (a+a\, \text{Sin}[e+f\, x])^{m}\, (c-c\, \text{Sin}[e+f\, x])^{7/2}}{c\, f\, (9+2\, m)}$$

Result (type 3, 1029 leaves) :

$$\frac{1}{f\left(\cos\left[\frac{1}{2}(e+fx)\right]-\sin\left[\frac{1}{2}(e+fx)\right]\right)^5}(a(1+\sin[e+fx]))^m(c-c\sin[e+fx])^{5/2}$$
$$\left(\left((18900A-14175B+12285C+15648Am-4140Bm+648Cm+5280Am^2-832Bm^2+1416Cm^2+896Am^3-208Bm^3+224Cm^3+64Am^4-16Bm^4+16Cm^4)\left(\left(\frac{1}{8}+\frac{i}{8}\right)\cos\left[\frac{1}{2}(e+fx)\right]+\left(\frac{1}{8}-\frac{i}{8}\right)\sin\left[\frac{1}{2}(e+fx)\right]\right)\right)\Big/((1+2m)(3+2m)(5+2m)(7+2m)(9+2m))+\right.$$
$$\left((18900A-14175B+12285C+15648Am-4140Bm+648Cm+5280Am^2-832Bm^2+1416Cm^2+896Am^3-208Bm^3+224Cm^3+64Am^4-16Bm^4+16Cm^4)\left(\left(\frac{1}{8}-\frac{i}{8}\right)\cos\left[\frac{1}{2}(e+fx)\right]+\left(\frac{1}{8}+\frac{i}{8}\right)\sin\left[\frac{1}{2}(e+fx)\right]\right)\right)\Big/((1+2m)(3+2m)(5+2m)(7+2m)(9+2m))+$$
$$\left((3150A-3465B+3150C+2356Am-1706Bm+828Cm+584Am^2-316Bm^2+200Cm^2+48Am^3-24Bm^3+16Cm^3)\left(\left(\frac{1}{8}-\frac{i}{8}\right)\cos\left[\frac{3}{2}(e+fx)\right]-\left(\frac{1}{8}+\frac{i}{8}\right)\sin\left[\frac{3}{2}(e+fx)\right]\right)\right)\Big/((3+2m)(5+2m)(7+2m)(9+2m))+$$
$$\left((3150A-3465B+3150C+2356Am-1706Bm+828Cm+584Am^2-316Bm^2+200Cm^2+48Am^3-24Bm^3+16Cm^3)\left(\left(\frac{1}{8}+\frac{i}{8}\right)\cos\left[\frac{3}{2}(e+fx)\right]-\left(\frac{1}{8}-\frac{i}{8}\right)\sin\left[\frac{3}{2}(e+fx)\right]\right)\right)\Big/((3+2m)(5+2m)(7+2m)(9+2m))+$$
$$\left((126A-315B+378C+64Am-124Bm+88Cm+8Am^2-12Bm^2+8Cm^2)\left(\left(-\frac{1}{8}+\frac{i}{8}\right)\cos\left[\frac{5}{2}(e+fx)\right]-\left(\frac{1}{8}+\frac{i}{8}\right)\sin\left[\frac{5}{2}(e+fx)\right]\right)\right)\Big/((5+2m)(7+2m)(9+2m))+$$
$$\left((126A-315B+378C+64Am-124Bm+88Cm+8Am^2-12Bm^2+8Cm^2)\left(\left(-\frac{1}{8}-\frac{i}{8}\right)\cos\left[\frac{5}{2}(e+fx)\right]-\left(\frac{1}{8}-\frac{i}{8}\right)\sin\left[\frac{5}{2}(e+fx)\right]\right)\right)\Big/((5+2m)(7+2m)(9+2m))+$$
$$\left((18B-45C+4Bm-6Cm)\left(\left(\frac{1}{16}-\frac{i}{16}\right)\cos\left[\frac{7}{2}(e+fx)\right]-\left(\frac{1}{16}+\frac{i}{16}\right)\sin\left[\frac{7}{2}(e+fx)\right]\right)\right)\Big/((7+2m)(9+2m))+$$
$$\left((18B-45C+4Bm-6Cm)\left(\left(\frac{1}{16}+\frac{i}{16}\right)\cos\left[\frac{7}{2}(e+fx)\right]-\left(\frac{1}{16}-\frac{i}{16}\right)\sin\left[\frac{7}{2}(e+fx)\right]\right)\right)\Big/((7+2m)(9+2m))+\frac{\left(\frac{1}{16}+\frac{i}{16}\right)C\cos\left[\frac{9}{2}(e+fx)\right]+\left(\frac{1}{16}-\frac{i}{16}\right)C\sin\left[\frac{9}{2}(e+fx)\right]}{9+2m}+$$
$$\left.\frac{\left(\frac{1}{16}-\frac{i}{16}\right)C\cos\left[\frac{9}{2}(e+fx)\right]+\left(\frac{1}{16}+\frac{i}{16}\right)C\sin\left[\frac{9}{2}(e+fx)\right]}{9+2m}\right)$$

Problem 19: Result unnecessarily involves complex numbers and more than

twice size of optimal antiderivative.

$$\int (a + a \sin[e + f x])^m (c - c \sin[e + f x])^{3/2} (A + B \sin[e + f x] + C \sin[e + f x]^2) \, dx$$

Optimal (type 3, 322 leaves, 4 steps) :

$$-\left(\left(8 c^2 \left(B \left(21 - 8 m - 4 m^2\right) - C \left(19 - 8 m + 4 m^2\right) - A \left(35 + 24 m + 4 m^2\right)\right) \cos[e + f x] \right.\right.$$
$$\left.\left. (a + a \sin[e + f x])^m\right) \Big/ \left(f (5 + 2 m) (7 + 2 m) \left(3 + 8 m + 4 m^2\right) \sqrt{c - c \sin[e + f x]}\right)\right) -$$
$$\left(2 c \left(B \left(21 - 8 m - 4 m^2\right) - C \left(19 - 8 m + 4 m^2\right) - A \left(35 + 24 m + 4 m^2\right)\right) \cos[e + f x] \right.$$
$$\left. (a + a \sin[e + f x])^m \sqrt{c - c \sin[e + f x]}\right) \Big/ \left(f (3 + 2 m) (5 + 2 m) (7 + 2 m)\right) -$$
$$\left(2 (7 B + 2 C + 2 B m + 4 C m) \cos[e + f x] (a + a \sin[e + f x])^m (c - c \sin[e + f x])^{3/2}\right) \Big/$$
$$\left(f (5 + 2 m) (7 + 2 m)\right) +$$
$$\frac{2 C \cos[e + f x] (a + a \sin[e + f x])^m (c - c \sin[e + f x])^{5/2}}{c f (7 + 2 m)}$$

Result (type 3, 719 leaves) :

$$\frac{1}{f\left(\cos\left[\frac{1}{2}(e+fx)\right]-\sin\left[\frac{1}{2}(e+fx)\right]\right)^3}(a(1+\sin[e+fx]))^m(c-c\sin[e+fx])^{3/2}$$
$$\left(\left((1260A-840B+735C+1144Am-128Bm-18Cm+336Am^2+32Bm^2+100Cm^2+32Am^3+8Cm^3)\right.\right.$$
$$\left.\left(\left(\frac{1}{8}+\frac{i}{8}\right)\cos\left[\frac{1}{2}(e+fx)\right]+\left(\frac{1}{8}-\frac{i}{8}\right)\sin\left[\frac{1}{2}(e+fx)\right]\right)\right)/$$
$$((1+2m)(3+2m)(5+2m)(7+2m))+$$
$$\left((1260A-840B+735C+1144Am-128Bm-18Cm+336Am^2+32Bm^2+100Cm^2+32Am^3+8Cm^3)\right.$$
$$\left.\left(\left(\frac{1}{8}-\frac{i}{8}\right)\cos\left[\frac{1}{2}(e+fx)\right]+\left(\frac{1}{8}+\frac{i}{8}\right)\sin\left[\frac{1}{2}(e+fx)\right]\right)\right)/$$
$$((1+2m)(3+2m)(5+2m)(7+2m))+$$
$$\left((140A-210B+175C+96Am-88Bm+16Cm+16Am^2-8Bm^2+4Cm^2)\right.$$
$$\left.\left(\left(\frac{1}{8}-\frac{i}{8}\right)\cos\left[\frac{3}{2}(e+fx)\right]-\left(\frac{1}{8}+\frac{i}{8}\right)\sin\left[\frac{3}{2}(e+fx)\right]\right)\right)/((3+2m)(5+2m)(7+2m))+$$
$$\left((140A-210B+175C+96Am-88Bm+16Cm+16Am^2-8Bm^2+4Cm^2)\right.$$
$$\left.\left(\left(\frac{1}{8}+\frac{i}{8}\right)\cos\left[\frac{3}{2}(e+fx)\right]-\left(\frac{1}{8}-\frac{i}{8}\right)\sin\left[\frac{3}{2}(e+fx)\right]\right)\right)/((3+2m)(5+2m)(7+2m))+$$
$$\left((14B-21C+4Bm-2Cm)\left(\left(\frac{1}{8}+\frac{i}{8}\right)\cos\left[\frac{5}{2}(e+fx)\right]+\left(\frac{1}{8}-\frac{i}{8}\right)\sin\left[\frac{5}{2}(e+fx)\right]\right)\right)/$$
$$((5+2m)(7+2m))+$$
$$\left((14B-21C+4Bm-2Cm)\left(\left(\frac{1}{8}-\frac{i}{8}\right)\cos\left[\frac{5}{2}(e+fx)\right]+\left(\frac{1}{8}+\frac{i}{8}\right)\sin\left[\frac{5}{2}(e+fx)\right]\right)\right)/$$
$$((5+2m)(7+2m))+\frac{\left(-\frac{1}{8}-\frac{i}{8}\right)C\cos\left[\frac{7}{2}(e+fx)\right]+\left(\frac{1}{8}-\frac{i}{8}\right)C\sin\left[\frac{7}{2}(e+fx)\right]}{7+2m}+$$
$$\left.\frac{\left(-\frac{1}{8}+\frac{i}{8}\right)C\cos\left[\frac{7}{2}(e+fx)\right]+\left(\frac{1}{8}+\frac{i}{8}\right)C\sin\left[\frac{7}{2}(e+fx)\right]}{7+2m}\right)$$

Problem 21: Attempted integration timed out after 120 seconds.

$$\int\frac{(a+a\sin[e+fx])^m(A+B\sin[e+fx]+C\sin[e+fx]^2)}{\sqrt{c-c\sin[e+fx]}}\,dx$$

Optimal (type 5, 170 leaves, 5 steps):

$$-\frac{2B\cos[e+fx](a+a\sin[e+fx])^m}{f(1+2m)\sqrt{c-c\sin[e+fx]}}+$$
$$\left((A+B+C)\cos[e+fx]\,\text{Hypergeometric2F1}\left[1,\frac{1}{2}+m,\frac{3}{2}+m,\frac{1}{2}(1+\sin[e+fx])\right]\right.$$
$$\left.(a+a\sin[e+fx])^m\right)/\left(f(1+2m)\sqrt{c-c\sin[e+fx]}\right)-\frac{2C\cos[e+fx](a+a\sin[e+fx])^{1+m}}{af(3+2m)\sqrt{c-c\sin[e+fx]}}$$

Result (type 1, 1 leaves):

???

Problem 22: Result unnecessarily involves higher level functions and more than twice size of optimal antiderivative.

$$\int \frac{(a+a\,\text{Sin}[e+f\,x])^m\,(A+B\,\text{Sin}[e+f\,x]+C\,\text{Sin}[e+f\,x]^2)}{(c-c\,\text{Sin}[e+f\,x])^{3/2}}\,dx$$

Optimal (type 5, 216 leaves, 5 steps):

$$\frac{(A+B+C)\,\text{Cos}[e+f\,x]\,(a+a\,\text{Sin}[e+f\,x])^{1+m}}{4\,a\,f\,(c-c\,\text{Sin}[e+f\,x])^{3/2}}+$$

$$\frac{(A+B+2\,A\,m+2\,B\,m+C\,(9+2\,m))\,\text{Cos}[e+f\,x]\,(a+a\,\text{Sin}[e+f\,x])^m}{4\,c\,f\,(1+2\,m)\,\sqrt{c-c\,\text{Sin}[e+f\,x]}}+$$

$$\left((A\,(1-2\,m)-B\,(3+2\,m)-C\,(7+2\,m))\,\text{Cos}[e+f\,x]\,\text{Hypergeometric2F1}\left[1,\frac{1}{2}+m,\frac{3}{2}+m,\frac{1}{2}\,(1+\text{Sin}[e+f\,x])\right]\,(a+a\,\text{Sin}[e+f\,x])^m\right)\Big/\left(4\,c\,f\,(1+2\,m)\,\sqrt{c-c\,\text{Sin}[e+f\,x]}\right)$$

Result (type 6, 23 229 leaves): Display of huge result suppressed!

Problem 23: Result unnecessarily involves higher level functions and more than twice size of optimal antiderivative.

$$\int \frac{(a+a\,\text{Sin}[e+f\,x])^m\,(A+B\,\text{Sin}[e+f\,x]+C\,\text{Sin}[e+f\,x]^2)}{(c-c\,\text{Sin}[e+f\,x])^{5/2}}\,dx$$

Optimal (type 5, 230 leaves, 5 steps):

$$\frac{(A+B+C)\,\text{Cos}[e+f\,x]\,(a+a\,\text{Sin}[e+f\,x])^{1+m}}{8\,a\,f\,(c-c\,\text{Sin}[e+f\,x])^{5/2}}+$$

$$\left((A\,(5-2\,m)-B\,(3+2\,m)-C\,(11+2\,m))\,\text{Cos}[e+f\,x]\,(a+a\,\text{Sin}[e+f\,x])^m\right)\Big/\left(16\,c\,f\,(c-c\,\text{Sin}[e+f\,x])^{3/2}\right)-$$

$$\left((B\,(5-8\,m-4\,m^2)-A\,(3-8\,m+4\,m^2)-C\,(19+24\,m+4\,m^2))\,\text{Cos}[e+f\,x]\,\text{Hypergeometric2F1}\left[1,\frac{1}{2}+m,\frac{3}{2}+m,\frac{1}{2}\,(1+\text{Sin}[e+f\,x])\right]\,(a+a\,\text{Sin}[e+f\,x])^m\right)\Big/\left(32\,c^2\,f\,(1+2\,m)\,\sqrt{c-c\,\text{Sin}[e+f\,x]}\right)$$

Result (type 6, 40 823 leaves): Display of huge result suppressed!

Problem 24: Result unnecessarily involves higher level functions and more than twice size of optimal antiderivative.

$$\int (a + a \sin[e + f x])^m (c - c \sin[e + f x])^{-2-m} (A + B \sin[e + f x] + C \sin[e + f x]^2) \, dx$$

Optimal (type 5, 232 leaves, 6 steps):

$$-\frac{1}{f(3+2m)} 2^{-\frac{1}{2}-m} C \cos[e+fx]^3 \text{Hypergeometric2F1}\left[\frac{1}{2}(3+2m), \frac{1}{2}(3+2m), \frac{1}{2}(5+2m), \frac{1}{2}(1+\sin[e+fx])\right] (1-\sin[e+fx])^{\frac{1}{2}+m} (a+a\sin[e+fx])^m (c-c\sin[e+fx])^{-2-m} + \frac{(A+B+C)\cos[e+fx](a+a\sin[e+fx])^{1+m}(c-c\sin[e+fx])^{-2-m}}{2af(3+2m)} + \frac{(A-B+C)\cos[e+fx](a+a\sin[e+fx])^m(c-c\sin[e+fx])^{-1-m}}{2cf(1+2m)}$$

Result (type 6, 7618 leaves):

$$-\Bigg(\Bigg(2^{-4-3m}\cos\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^{-2m}\cot\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]^3 \left(\cos\left[\frac{1}{2}(e+fx)\right]-\sin\left[\frac{1}{2}(e+fx)\right]\right)^{-2(-2-m)} (a+a\sin[e+fx])^m (c-c\sin[e+fx])^{-2-m} \left(-2A\cos\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^{2m}\left(\cos\left[\frac{\pi}{4}+\frac{1}{2}\left(e-\frac{\pi}{2}+fx\right)\right]-\sin\left[\frac{\pi}{4}+\frac{1}{2}\left(e-\frac{\pi}{2}+fx\right)\right]\right)^{-4-2m} - C\cos\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^{2m}\left(\cos\left[\frac{\pi}{4}+\frac{1}{2}\left(e-\frac{\pi}{2}+fx\right)\right]-\sin\left[\frac{\pi}{4}+\frac{1}{2}\left(e-\frac{\pi}{2}+fx\right)\right]\right)^{-4-2m} - C\cos\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^{2m}\cos\left[2\left(-e+\frac{\pi}{2}-fx\right)\right] \left(\cos\left[\frac{\pi}{4}+\frac{1}{2}\left(e-\frac{\pi}{2}+fx\right)\right]-\sin\left[\frac{\pi}{4}+\frac{1}{2}\left(e-\frac{\pi}{2}+fx\right)\right]\right)^{-4-2m} - 2B\cos\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^{2m}\sin[e+fx]\left(\cos\left[\frac{\pi}{4}+\frac{1}{2}\left(e-\frac{\pi}{2}+fx\right)\right]-\sin\left[\frac{\pi}{4}+\frac{1}{2}\left(e-\frac{\pi}{2}+fx\right)\right]\right)^{-4-2m}\Bigg) \left(\frac{1}{1+\tan\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]^2}\right)^{2m} \left(\frac{\tan\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]}{1+\tan\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]^2}\right)^{-2m} \left(-\frac{1}{3+2m}(A+B+C)\,\text{Hypergeometric2F1}\left[-\frac{3}{2}-m, -2m, -\frac{1}{2}-m, \tan\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]^2\right] - \frac{1}{1+2m}(3A-5B-13C)\,\text{Hypergeometric2F1}\left[-\frac{1}{2}-m, -2m, \frac{1}{2}-m, \tan\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]^2\right]\tan\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-fx\right)\right]^2 -$$

$$\left(64\,C\,(-3+2\,m)\,\text{AppellF1}\left[\frac{1}{2}-m,\,-2\,m,\,1,\,\frac{3}{2}-m,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$
$$\left.-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^4\left(1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{2\,m}\Big)\Big/$$
$$\left((-1+2\,m)\left(1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\left((-3+2\,m)\,\text{AppellF1}\left[\frac{1}{2}-m,\,-2\,m,\right.\right.\right.$$
$$1,\,\frac{3}{2}-m,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Big]+$$
$$2\left(2\,m\,\text{AppellF1}\left[\frac{3}{2}-m,\,1-2\,m,\,1,\,\frac{5}{2}-m,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$
$$\left.-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]+\text{AppellF1}\left[\frac{3}{2}-m,\,-2\,m,\,2,\,\frac{5}{2}-m,\right.$$
$$\left.\left.\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\Big)-$$
$$\frac{1}{3-8\,m+4\,m^2}\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^4\left((3\,A-5\,B-13\,C)\,(-3+2\,m)\,\text{Hypergeometric2F1}\left[\frac{1}{2}-m,\right.\right.$$
$$-2\,m,\,\frac{3}{2}-m,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Big]+(A+B+C)\,(-1+2\,m)\,\text{Hypergeometric2F1}\Big[$$
$$\left.\left.\frac{3}{2}-m,\,-2\,m,\,\frac{5}{2}-m,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\Big)\Big)\Big/$$
$$\left(f\left(3\times 2^{-5-3\,m}\,\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Csc}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\left(\frac{1}{1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}\right)^{2\,m}\right.\right.$$
$$\left(\frac{\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]}{1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}\right)^{-2\,m}$$
$$\left(-\frac{1}{3+2\,m}(A+B+C)\,\text{Hypergeometric2F1}\left[-\frac{3}{2}-m,\,-2\,m,\,-\frac{1}{2}-m,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]-\right.$$
$$\frac{1}{1+2\,m}(3\,A-5\,B-13\,C)\,\text{Hypergeometric2F1}\left[-\frac{1}{2}-m,\,-2\,m,\right.$$
$$\left.\frac{1}{2}-m,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2-$$
$$\left(64\,C\,(-3+2\,m)\,\text{AppellF1}\left[\frac{1}{2}-m,\,-2\,m,\,1,\,\frac{3}{2}-m,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$
$$\left.-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^4\left(1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{2\,m}\Big)\Big/$$
$$\left((-1+2\,m)\left(1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\left((-3+2\,m)\,\text{AppellF1}\left[\frac{1}{2}-m,\,-2\,m,\right.\right.\right.$$
$$1,\,\frac{3}{2}-m,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Big]+2\left(2\,m\,\text{AppellF1}\Big[\right.$$
$$\frac{3}{2}-m,\,1-2\,m,\,1,\,\frac{5}{2}-m,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Big]+$$
$$\text{AppellF1}\left[\frac{3}{2}-m,\,-2\,m,\,2,\,\frac{5}{2}-m,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]\Big)\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big)\Big)-\frac{1}{3-8m+4m^2}$$
$$\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^4\Big(\left(3A-5B-13C\right)\left(-3+2m\right)\text{Hypergeometric2F1}\Big[\frac{1}{2}-m,$$
$$-2m,\ \frac{3}{2}-m,\ \text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]+\left(A+B+C\right)\left(-1+2m\right)\text{Hypergeometric2F1}\Big[$$
$$\frac{3}{2}-m,\ -2m,\ \frac{5}{2}-m,\ \text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big)\Big)+$$
$$8^{-1-m}\,m\,\text{Csc}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\left(\frac{1}{1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}\right)^{1+2m}$$
$$\left(\frac{\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]}{1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}\right)^{-2m}$$
$$\Big(-\frac{1}{3+2m}\left(A+B+C\right)\text{Hypergeometric2F1}\Big[-\frac{3}{2}-m,\ -2m,\ -\frac{1}{2}-m,\ \text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]-$$
$$\frac{1}{1+2m}\left(3A-5B-13C\right)\text{Hypergeometric2F1}\Big[-\frac{1}{2}-m,\ -2m,$$
$$\frac{1}{2}-m,\ \text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2-$$
$$\Big(64C\left(-3+2m\right)\text{AppellF1}\Big[\frac{1}{2}-m,\ -2m,\ 1,\ \frac{3}{2}-m,\ \text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$
$$-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^4\left(1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^{2m}\Big)\Big/$$
$$\Big(\left(-1+2m\right)\left(1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\Big(\left(-3+2m\right)\text{AppellF1}\Big[\frac{1}{2}-m,\ -2m,$$
$$1,\ \frac{3}{2}-m,\ \text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ -\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]+2\Big(2m\,\text{AppellF1}\Big[$$
$$\frac{3}{2}-m,\ 1-2m,\ 1,\ \frac{5}{2}-m,\ \text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ -\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]+$$
$$\text{AppellF1}\Big[\frac{3}{2}-m,\ -2m,\ 2,\ \frac{5}{2}-m,\ \text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$
$$-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big)\Big)-\frac{1}{3-8m+4m^2}$$
$$\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^4\Big(\left(3A-5B-13C\right)\left(-3+2m\right)\text{Hypergeometric2F1}\Big[\frac{1}{2}-m,$$
$$-2m,\ \frac{3}{2}-m,\ \text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]+\left(A+B+C\right)\left(-1+2m\right)\text{Hypergeometric2F1}\Big[$$
$$\frac{3}{2}-m,\ -2m,\ \frac{5}{2}-m,\ \text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big]\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big)\Big)+$$
$$2^{-2-3m}\,m\,\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^3\left(\frac{1}{1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}\right)^{2m}$$

$$\left(\frac{\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]}{1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}\right)^{-1-2m}$$

$$\left(-\frac{\text{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{2\left(1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^2}+\frac{\text{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{4\left(1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)}\right)$$

$$\left(-\frac{1}{3+2m}(A+B+C)\,\text{Hypergeometric2F1}\left[-\frac{3}{2}-m,\,-2m,\,-\frac{1}{2}-m,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]-\right.$$

$$\frac{1}{1+2m}(3A-5B-13C)\,\text{Hypergeometric2F1}\left[-\frac{1}{2}-m,\,-2m,\right.$$

$$\left.\frac{1}{2}-m,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2-$$

$$\left(64C\left(-3+2m\right)\text{AppellF1}\left[\frac{1}{2}-m,\,-2m,\,1,\,\frac{3}{2}-m,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.\right.$$

$$\left.-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^4\left(1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^{2m}\Big)\Big/$$

$$\left(\left(-1+2m\right)\left(1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\left(\left(-3+2m\right)\text{AppellF1}\left[\frac{1}{2}-m,\,-2m,\right.\right.\right.$$

$$\left.\left.1,\,\frac{3}{2}-m,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]+2\left(2m\,\text{AppellF1}\left[\right.\right.\right.$$

$$\left.\left.\frac{3}{2}-m,\,1-2m,\,1,\,\frac{5}{2}-m,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]+\right.$$

$$\left.\text{AppellF1}\left[\frac{3}{2}-m,\,-2m,\,2,\,\frac{5}{2}-m,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.\right.$$

$$\left.\left.-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]\right)\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big)\Big)-\frac{1}{3-8m+4m^2}$$

$$\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^4\left((3A-5B-13C)\left(-3+2m\right)\text{Hypergeometric2F1}\left[\frac{1}{2}-m,\right.\right.$$

$$\left.-2m,\,\frac{3}{2}-m,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]+\left(A+B+C\right)\left(-1+2m\right)\text{Hypergeometric2F1}\left[\right.$$

$$\left.\left.\frac{3}{2}-m,\,-2m,\,\frac{5}{2}-m,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\Big)-$$

$$8^{-1-m}\,\text{Cot}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^3\left(\frac{1}{1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}\right)^{2m}$$

$$\left(\frac{\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]}{1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}\right)^{-2m}$$

$$\left(-\frac{1}{2\left(1+2m\right)}(3A-5B-13C)\,\text{Hypergeometric2F1}\left[-\frac{1}{2}-m,\,-2m,\,\frac{1}{2}-m,\right.\right.$$

$$\left.\left.\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]\text{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]+\right.$$

$$\left(32\,C\,\left(-3+2\,m\right)\,\text{AppellF1}\left[\frac{1}{2}-m,\,-2\,m,\,1,\,\frac{3}{2}-m,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$
$$\left.-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\,\text{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2$$
$$\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^5\left(1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{2\,m}\Bigg)\Big/$$
$$\left(\left(-1+2\,m\right)\,\left(1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^2\left(\left(-3+2\,m\right)\,\text{AppellF1}\left[\frac{1}{2}-m,\,-2\,m,\,1,\right.\right.\right.$$
$$\frac{3}{2}-m,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Big]+2\left(2\,m\,\text{AppellF1}\Big[\right.$$
$$\frac{3}{2}-m,\,1-2\,m,\,1,\,\frac{5}{2}-m,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Big]+$$
$$\text{AppellF1}\left[\frac{3}{2}-m,\,-2\,m,\,2,\,\frac{5}{2}-m,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$
$$\left.\left.-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\right)\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Big)\Big)\,-$$
$$\left(64\,C\,\left(-3+2\,m\right)\,\text{AppellF1}\left[\frac{1}{2}-m,\,-2\,m,\,1,\,\frac{3}{2}-m,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$
$$\left.-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\,\text{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2$$
$$\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^3\left(1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{2\,m}\Bigg)\Big/$$
$$\left(\left(-1+2\,m\right)\,\left(1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\left(\left(-3+2\,m\right)\,\text{AppellF1}\left[\frac{1}{2}-m,\,-2\,m,\,1,\right.\right.\right.$$
$$\frac{3}{2}-m,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Big]+2\left(2\,m\,\text{AppellF1}\Big[\right.$$
$$\frac{3}{2}-m,\,1-2\,m,\,1,\,\frac{5}{2}-m,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Big]+$$
$$\text{AppellF1}\left[\frac{3}{2}-m,\,-2\,m,\,2,\,\frac{5}{2}-m,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$
$$\left.\left.-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\right)\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Big)\Big)\,-$$
$$\left(64\,C\,\left(-3+2\,m\right)\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^4\left(-\frac{1}{\frac{3}{2}-m}\left(\frac{1}{2}-m\right)\,m\,\text{AppellF1}\left[\frac{3}{2}-m,\right.\right.\right.$$
$$1-2\,m,\,1,\,\frac{5}{2}-m,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Big]$$
$$\text{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]-\frac{1}{2\left(\frac{3}{2}-m\right)}\left(\frac{1}{2}-m\right)\,\text{AppellF1}\Big[$$
$$\frac{3}{2}-m,\,-2\,m,\,2,\,\frac{5}{2}-m,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Big]$$
$$\left.\text{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\right)\,\left(1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{2\,m}\Bigg)\Big/$$

$$\left(\left(-1+2\,m\right)\,\left(1+\text{Tan}\left[\frac{1}{4}\,\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\,\left(\left(-3+2\,m\right)\,\text{AppellF1}\left[\frac{1}{2}-m,\,-2\,m,\right.\right.\right.$$
$$\left.\left.\left.1,\,\frac{3}{2}-m,\,\text{Tan}\left[\frac{1}{4}\,\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\,\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]+2\,\left(2\,m\,\text{AppellF1}\left[\right.\right.\right.\right.$$
$$\left.\left.\left.\left.\frac{3}{2}-m,\,1-2\,m,\,1,\,\frac{5}{2}-m,\,\text{Tan}\left[\frac{1}{4}\,\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\,\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]+\right.\right.\right.$$
$$\left.\left.\left.\text{AppellF1}\left[\frac{3}{2}-m,\,-2\,m,\,2,\,\frac{5}{2}-m,\,\text{Tan}\left[\frac{1}{4}\,\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.\right.$$
$$\left.\left.\left.\left.-\text{Tan}\left[\frac{1}{4}\,\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\right)\,\text{Tan}\left[\frac{1}{4}\,\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\right)+$$
$$\left(64\,C\,m\,\left(-3+2\,m\right)\,\text{AppellF1}\left[\frac{1}{2}-m,\,-2\,m,\,1,\,\frac{3}{2}-m,\,\text{Tan}\left[\frac{1}{4}\,\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$
$$\left.-\text{Tan}\left[\frac{1}{4}\,\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\,\text{Sec}\left[\frac{1}{4}\,\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2$$
$$\text{Tan}\left[\frac{1}{4}\,\left(-e+\frac{\pi}{2}-f\,x\right)\right]^5\,\left(1-\text{Tan}\left[\frac{1}{4}\,\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{-1+2\,m}\Bigg)\Bigg/$$
$$\left(\left(-1+2\,m\right)\,\left(1+\text{Tan}\left[\frac{1}{4}\,\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\,\left(\left(-3+2\,m\right)\,\text{AppellF1}\left[\frac{1}{2}-m,\,-2\,m,\,1,\right.\right.\right.$$
$$\left.\left.\left.\frac{3}{2}-m,\,\text{Tan}\left[\frac{1}{4}\,\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\,\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]+2\,\left(2\,m\,\text{AppellF1}\left[\right.\right.\right.\right.$$
$$\left.\left.\left.\left.\frac{3}{2}-m,\,1-2\,m,\,1,\,\frac{5}{2}-m,\,\text{Tan}\left[\frac{1}{4}\,\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\,\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]+\right.\right.\right.$$
$$\left.\left.\left.\text{AppellF1}\left[\frac{3}{2}-m,\,-2\,m,\,2,\,\frac{5}{2}-m,\,\text{Tan}\left[\frac{1}{4}\,\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.\right.$$
$$\left.\left.\left.\left.-\text{Tan}\left[\frac{1}{4}\,\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\right)\,\text{Tan}\left[\frac{1}{4}\,\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\right)-$$
$$\frac{1}{3-8\,m+4\,m^2}\text{Sec}\left[\frac{1}{4}\,\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\,\text{Tan}\left[\frac{1}{4}\,\left(-e+\frac{\pi}{2}-f\,x\right)\right]^3$$
$$\left(\left(3\,A-5\,B-13\,C\right)\,\left(-3+2\,m\right)\,\text{Hypergeometric2F1}\left[\frac{1}{2}-m,\,-2\,m,\,\frac{3}{2}-\right.\right.$$
$$\left.\left.m,\,\text{Tan}\left[\frac{1}{4}\,\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]+\left(A+B+C\right)\,\left(-1+2\,m\right)\,\text{Hypergeometric2F1}\left[\frac{3}{2}-\right.$$
$$\left.m,\,-2\,m,\,\frac{5}{2}-m,\,\text{Tan}\left[\frac{1}{4}\,\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\,\text{Tan}\left[\frac{1}{4}\,\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)-$$
$$\frac{1}{2\,\left(3+2\,m\right)}\left(A+B+C\right)\,\left(-\frac{3}{2}-m\right)\,\text{Csc}\left[\frac{1}{4}\,\left(-e+\frac{\pi}{2}-f\,x\right)\right]\,\text{Sec}\left[\frac{1}{4}\,\left(-e+\frac{\pi}{2}-f\,x\right)\right]$$
$$\left(-\text{Hypergeometric2F1}\left[-\frac{3}{2}-m,\,-2\,m,\,-\frac{1}{2}-m,\,\text{Tan}\left[\frac{1}{4}\,\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]+\right.$$
$$\left.\left(1-\text{Tan}\left[\frac{1}{4}\,\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{2\,m}\right)-\frac{1}{2\,\left(1+2\,m\right)}$$
$$\left(3\,A-5\,B-13\,C\right)\,\left(-\frac{1}{2}-m\right)\,\text{Sec}\left[\frac{1}{4}\,\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\,\text{Tan}\left[\frac{1}{4}\,\left(-e+\frac{\pi}{2}-f\,x\right)\right]$$
$$\left(-\text{Hypergeometric2F1}\left[-\frac{1}{2}-m,\,-2\,m,\,\frac{1}{2}-m,\,\text{Tan}\left[\frac{1}{4}\,\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]+\right.$$
$$\left.\left(1-\text{Tan}\left[\frac{1}{4}\,\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{2\,m}\right)+$$

$$\left(64\,C\,\left(-3+2\,m\right)\,\text{AppellF1}\left[\frac{1}{2}-m,\,-2\,m,\,1,\,\frac{3}{2}-m,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$
$$\left.-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^4\left(1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{2\,m}$$
$$\left(\left(2\,m\,\text{AppellF1}\left[\frac{3}{2}-m,\,1-2\,m,\,1,\,\frac{5}{2}-m,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.\right.$$
$$\left.-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]+\text{AppellF1}\left[\frac{3}{2}-m,\,-2\,m,\,2,\,\frac{5}{2}-m,\right.$$
$$\left.\left.\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\right)\text{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2$$
$$\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]+\left(-3+2\,m\right)\left(-\frac{1}{\frac{3}{2}-m}\left(\frac{1}{2}-m\right)\,m\,\text{AppellF1}\left[\frac{3}{2}-m,\right.\right.$$
$$\left.1-2\,m,\,1,\,\frac{5}{2}-m,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]$$
$$\text{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]-\frac{1}{2\left(\frac{3}{2}-m\right)}\left(\frac{1}{2}-m\right)\text{AppellF1}\left[\right.$$
$$\frac{3}{2}-m,\,-2\,m,\,2,\,\frac{5}{2}-m,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]$$
$$\left.\text{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\right)+2\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2$$
$$\left(-\frac{1}{\frac{5}{2}-m}\left(\frac{3}{2}-m\right)\,m\,\text{AppellF1}\left[\frac{5}{2}-m,\,1-2\,m,\,2,\,\frac{7}{2}-m,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$
$$\left.-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\text{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]-$$
$$\frac{1}{\frac{5}{2}-m}\left(\frac{3}{2}-m\right)\text{AppellF1}\left[\frac{5}{2}-m,\,-2\,m,\,3,\,\frac{7}{2}-m,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$
$$\left.-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\text{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]+$$
$$2\,m\left(-\frac{1}{2\left(\frac{5}{2}-m\right)}\left(\frac{3}{2}-m\right)\text{AppellF1}\left[\frac{5}{2}-m,\,1-2\,m,\,2,\,\frac{7}{2}-m,\,\text{Tan}\left[\frac{1}{4}\left(-e+\right.\right.\right.\right.$$
$$\left.\left.\left.\left.\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\text{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2$$
$$\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]+\frac{1}{2\left(\frac{5}{2}-m\right)}\left(1-2\,m\right)\left(\frac{3}{2}-m\right)\text{AppellF1}\left[\frac{5}{2}-m,\right.$$
$$\left.2-2\,m,\,1,\,\frac{7}{2}-m,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]$$

$$\text{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]\Bigg)\Bigg)\Bigg)\Bigg)\Bigg/$$

$$\Bigg(\left(-1+2m\right)\left(1+\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\Bigg(\left(-3+2m\right)\text{AppellF1}\left[\frac{1}{2}-m,\,-2m,\,1,\,\frac{3}{2}-m,$$

$$\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg]+2\Bigg(2m\,\text{AppellF1}\left[\frac{3}{2}-m,$$

$$1-2m,\,1,\,\frac{5}{2}-m,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\,-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg]+$$

$$\text{AppellF1}\left[\frac{3}{2}-m,\,-2m,\,2,\,\frac{5}{2}-m,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$

$$-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg]\Bigg)\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg)^2\Bigg)-\frac{1}{3-8m+4m^2}$$

$$\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^4\Bigg(\frac{1}{2}\left(A+B+C\right)\left(-1+2m\right)\text{Hypergeometric2F1}\left[\frac{3}{2}-m,\,-2m,$$

$$\frac{5}{2}-m,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg]\text{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]+$$

$$\frac{1}{2}\left(3A-5B-13C\right)\left(\frac{1}{2}-m\right)\left(-3+2m\right)\text{Csc}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]\text{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]$$

$$\Bigg(-\text{Hypergeometric2F1}\left[\frac{1}{2}-m,\,-2m,\,\frac{3}{2}-m,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg]+$$

$$\left(1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^{2m}\Bigg)+\frac{1}{2}\left(A+B+C\right)\left(\frac{3}{2}-m\right)\left(-1+2m\right)$$

$$\text{Sec}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]\Bigg(-\text{Hypergeometric2F1}\left[\frac{3}{2}-m,$$

$$-2m,\,\frac{5}{2}-m,\,\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg]+\left(1-\text{Tan}\left[\frac{1}{4}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^{2m}\Bigg)\Bigg)\Bigg)\Bigg)\Bigg)$$

Problem 25: Result more than twice size of optimal antiderivative.

$$\int\left(a+a\,\text{Sin}[e+f x]\right)^m\left(c+d\,\text{Sin}[e+f x]\right)^n\left(A+B\,\text{Sin}[e+f x]+C\,\text{Sin}[e+f x]^2\right)\text{d}x$$

Optimal (type 6, 383 leaves, 10 steps):

$$-\frac{C\,\text{Cos}[e+f\,x]\,(a+a\,\text{Sin}[e+f\,x])^m\,(c+d\,\text{Sin}[e+f\,x])^{1+n}}{d\,f\,(2+m+n)}+$$

$$\left(\sqrt{2}\,\left(c\,(C+2\,C\,m)+d\,(C\,(1-m+n)+A\,(2+m+n)-B\,(2+m+n))\right)\right.$$

$$\text{AppellF1}\left[\frac{1}{2}+m,\ \frac{1}{2},\ -n,\ \frac{3}{2}+m,\ \frac{1}{2}\,(1+\text{Sin}[e+f\,x]),\ -\frac{d\,(1+\text{Sin}[e+f\,x])}{c-d}\right]$$

$$\left.\text{Cos}[e+f\,x]\,(a+a\,\text{Sin}[e+f\,x])^m\,(c+d\,\text{Sin}[e+f\,x])^n\left(\frac{c+d\,\text{Sin}[e+f\,x]}{c-d}\right)^{-n}\right)\Big/$$

$$\left(d\,f\,(1+2\,m)\,(2+m+n)\,\sqrt{1-\text{Sin}[e+f\,x]}\,\right)-\left(\sqrt{2}\,\left(c\,C\,(1+m)-d\,(C\,m+B\,(2+m+n))\right)\right.$$

$$\text{AppellF1}\left[\frac{3}{2}+m,\ \frac{1}{2},\ -n,\ \frac{5}{2}+m,\ \frac{1}{2}\,(1+\text{Sin}[e+f\,x]),\ -\frac{d\,(1+\text{Sin}[e+f\,x])}{c-d}\right]$$

$$\left.\text{Cos}[e+f\,x]\,(a+a\,\text{Sin}[e+f\,x])^{1+m}\,(c+d\,\text{Sin}[e+f\,x])^n\left(\frac{c+d\,\text{Sin}[e+f\,x]}{c-d}\right)^{-n}\right)\Big/$$

$$\left(a\,d\,f\,(3+2\,m)\,(2+m+n)\,\sqrt{1-\text{Sin}[e+f\,x]}\,\right)$$

Result (type 6, 3145 leaves):

$$-\frac{1}{2\,f}\,\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{-2\,m}\left(-\left(\left(6\,C\,(c+d)\right.\right.\right.$$

$$\text{AppellF1}\left[\frac{1}{2},\ -\frac{3}{2}-m,\ -n,\ \frac{3}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\ \frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]$$

$$\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{3+2\,m}\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}+\frac{1}{2}\,(-4-2\,m)}\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]$$

$$\left.\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{3}{2}+m}\left(c+d-2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^n\right)\Big/\left(-3\,(c+d)\right.$$

$$\text{AppellF1}\left[\frac{1}{2},\ -\frac{3}{2}-m,\ -n,\ \frac{3}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\ \frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$

$$\left(4\,d\,n\,\text{AppellF1}\left[\frac{3}{2},\ -\frac{3}{2}-m,\ 1-n,\ \frac{5}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+(c+d)\,(3+2\,m)\,\text{AppellF1}\left[\frac{3}{2},\ -\frac{1}{2}-m,\ -n,\ \frac{5}{2},\right.$$

$$\left.\left.\left.\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\ \frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\right)-$$

$$\left(12\,B\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\ -\frac{1}{2}-m,\ -n,\ \frac{3}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big]\,\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{1+2\,m}$$

$$\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}+\frac{1}{2}(-2-2\,m)}\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]$$

$$\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}+m}\left(c+d-2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^n\Bigg)\Big/$$

$$\Bigg(-3\,(c+d)\,\text{AppellF1}\Big[\frac{1}{2},\,-\frac{1}{2}-m,\,-n,\,\frac{3}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,$$

$$\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big]+$$

$$\Bigg(4\,d\,n\,\text{AppellF1}\Big[\frac{3}{2},\,-\frac{1}{2}-m,\,1-n,\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,$$

$$\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big]+(c+d)\,(1+2\,m)\,\text{AppellF1}\Big[\frac{3}{2},\,\frac{1}{2}-m,\,-n,\,\frac{5}{2},$$

$$\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big]\Bigg)\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)+$$

$$\Bigg(12\,A\,(c+d)\,\text{AppellF1}\Big[\frac{1}{2},\,\frac{1}{2}-m,\,-n,\,\frac{3}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big]$$

$$\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{-1+2\,m}\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}-m}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]$$

$$\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{-\frac{1}{2}+m}\left(c+d-2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^n\Bigg)\Big/$$

$$\Bigg(3\,(c+d)\,\text{AppellF1}\Big[\frac{1}{2},\,\frac{1}{2}-m,\,-n,\,\frac{3}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big]-$$

$$\Bigg(4\,d\,n\,\text{AppellF1}\Big[\frac{3}{2},\,\frac{1}{2}-m,\,1-n,\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big]+$$

$$(c+d)\,(-1+2\,m)\,\text{AppellF1}\Big[\frac{3}{2},\,\frac{3}{2}-m,\,-n,\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,$$

$$\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big]\Bigg)\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)+$$

$$\left(6\,C\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{1}{2}-m,\,-n,\,\frac{3}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right.$$

$$\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{-1+2\,m}\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}-m}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]$$

$$\left.\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{-\frac{1}{2}+m}\left(c+d-2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^n\right)\Big/$$

$$\left(3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{1}{2}-m,\,-n,\,\frac{3}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]-\right.$$

$$\left(4\,d\,n\,\text{AppellF1}\left[\frac{3}{2},\,\frac{1}{2}-m,\,1-n,\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\right.$$

$$(c+d)\,(-1+2\,m)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{3}{2}-m,\,-n,\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$\left.\left.\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)+$$

$$\left(20\,C\,(c+d)\,\text{AppellF1}\left[\frac{3}{2},\,-\frac{1}{2}-m,\,-n,\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{1+2\,m}$$

$$\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}(-1-2\,m)}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^3$$

$$\left.\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}+m}\left(c+d-2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^n\right)\Big/$$

$$\left(-5\,(c+d)\,\text{AppellF1}\left[\frac{3}{2},\,-\frac{1}{2}-m,\,-n,\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$

$$\left(4\,d\,n\,\text{AppellF1}\left[\frac{5}{2},\,-\frac{1}{2}-m,\,1-n,\,\frac{7}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\left.\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+(c+d)\,(1+2\,m)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{1}{2}-m,\,-n,\,\frac{7}{2},\right.\right.$$

$$\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ \frac{2 d \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Bigg]\Bigg)\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg)+$$

$$\Bigg(20 B (c+d)\,\text{AppellF1}\left[\frac{3}{2},\ \frac{1}{2}-m,\ -n,\ \frac{5}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ \frac{2 d \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]$$

$$\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^{-1+2m}\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^{\frac{1}{2}(1-2m)}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^3$$

$$\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^{-\frac{1}{2}+m}\left(c+d-2 d \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^n\Bigg)\Bigg/$$

$$\Bigg(3\Bigg(-5 (c+d)\,\text{AppellF1}\left[\frac{3}{2},\ \frac{1}{2}-m,\ -n,\ \frac{5}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$

$$\left.\frac{2 d \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+$$

$$\Bigg(4 d n\,\text{AppellF1}\left[\frac{5}{2},\ \frac{1}{2}-m,\ 1-n,\ \frac{7}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$

$$\left.\frac{2 d \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+(c+d)\,(-1+2m)\,\text{AppellF1}\left[\frac{5}{2},\ \frac{3}{2}-m,\ -n,\ \frac{7}{2},\right.$$

$$\left.\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ \frac{2 d \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg)\Bigg)-$$

$$\Bigg(14 C (c+d)\,\text{AppellF1}\left[\frac{5}{2},\ \frac{1}{2}-m,\ -n,\ \frac{7}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ \frac{2 d \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]$$

$$\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^{-1+2m}\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^{\frac{1}{2}(1-2m)}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^5$$

$$\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^{-\frac{1}{2}+m}\left(c+d-2 d \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^n\Bigg)\Bigg/$$

$$\Bigg(5\Bigg(-7 (c+d)\,\text{AppellF1}\left[\frac{5}{2},\ \frac{1}{2}-m,\ -n,\ \frac{7}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$

$$\left.\frac{2 d \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+\Bigg(4 d n\,\text{AppellF1}\left[\frac{7}{2},\ \frac{1}{2}-m,\ 1-n,\ \frac{9}{2},\right.$$

$$\left.\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ \frac{2 d \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+(c+d)\,(-1+2m)$$

$$\text{AppellF1}\left[\frac{7}{2}, \frac{3}{2}-m, -n, \frac{9}{2}, \sin\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, \frac{2 d \sin\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]$$

$$\sin\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg)\Bigg)\Bigg)\Bigg)\left(a+a \sin[e+f x]\right)^m$$

Problem 26: Result more than twice size of optimal antiderivative.

$$\int \left(a+a \sin[e+f x]\right)^m \left(c+d \sin[e+f x]\right)^{-2-m} \left(A+B \sin[e+f x]+C \sin[e+f x]^2\right) dx$$

Optimal (type 6, 410 leaves, 8 steps):

$$\left(\left(c^2 C-B c d+A d^2\right) \cos[e+f x] \left(a+a \sin[e+f x]\right)^m \left(c+d \sin[e+f x]\right)^{-1-m}\right) \Big/ \left(d\left(c^2-d^2\right) f (1+m)\right) -$$

$$\Bigg(2^{\frac{1}{2}+m} a \left(c d \left(A+C+A m+B m+C m\right)-c^2\left(C+2 C m\right)-d^2\left(A m+B(1+m)-C(1+m)\right)\right) \cos[e+f x]$$

$$\text{Hypergeometric2F1}\left[\frac{1}{2}, \frac{1}{2}-m, \frac{3}{2}, \frac{(c-d)(1-\sin[e+f x])}{2\left(c+d \sin[e+f x]\right)}\right] \left(a+a \sin[e+f x]\right)^{-1+m}$$

$$\left(\frac{(c+d)(1+\sin[e+f x])}{c+d \sin[e+f x]}\right)^{\frac{1}{2}-m} \left(c+d \sin[e+f x]\right)^{-m}\Bigg) \Big/ \left((c-d) d (c+d)^2 f (1+m)\right) +$$

$$\Bigg(\sqrt{2}\, C \,\text{AppellF1}\left[\frac{3}{2}+m, \frac{1}{2}, 1+m, \frac{5}{2}+m, \frac{1}{2}(1+\sin[e+f x]), -\frac{d(1+\sin[e+f x])}{c-d}\right]$$

$$\cos[e+f x] \left(a+a \sin[e+f x]\right)^{1+m} \left(c+d \sin[e+f x]\right)^{-m} \left(\frac{c+d \sin[e+f x]}{c-d}\right)^m\Bigg) \Big/$$

$$\left(a (c-d) d f (3+2 m) \sqrt{1-\sin[e+f x]}\right)$$

Result (type 6, 5581 leaves):

$$\Bigg(2 \cos\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^{-1-2m} \sin\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]$$

$$\left(a+a \sin[e+f x]\right)^m \Bigg(2 A \cos\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^{2m} \left(c+d \sin[e+f x]\right)^{-2-m} +$$

$$C \cos\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^{2m} \left(c+d \sin[e+f x]\right)^{-2-m} +$$

$$C \cos\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^{2m} \cos\left[2\left(-e+\frac{\pi}{2}-f x\right)\right] \left(c+d \sin[e+f x]\right)^{-2-m} +$$

$$2 B \cos\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^{2m} \sin[e+f x] \left(c+d \sin[e+f x]\right)^{-2-m}\Bigg)$$

$$\left(1+\tan\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^{-m} \left(c+\frac{d-d \tan\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{1+\tan\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}\right)^{-m}$$

$$\left(\frac{1}{c-d}\left((c+d)\left(c^2 C-2 c C d+(-A+B) d^2\right)\right.\right.$$

$$\text{Hypergeometric2F1}\left[\frac{1}{2}, 1+m, \frac{3}{2}, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+$$

$$\left.2 d\left(c^2 C-B c d+A d^2\right)\text{Hypergeometric2F1}\left[\frac{1}{2}, 2+m, \frac{3}{2}, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\right)$$

$$\left(1+\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right)^m+\left(3 C\,(c+d)^3\right.$$

$$\text{AppellF1}\left[\frac{1}{2}, m, 1, \frac{3}{2}, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]\Big/$$

$$\left(\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\left(-3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2}, m, 1, \frac{3}{2},\right.\right.\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]+2\left((c+d)\right.$$

$$\text{AppellF1}\left[\frac{3}{2}, m, 2, \frac{5}{2}, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]+$$

$$(c-d)\,m\,\text{AppellF1}\left[\frac{3}{2}, 1+m, 1, \frac{5}{2}, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d},\right.$$

$$\left.\left.\left.\left.\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\right)\right)\Big/$$

$$\left(d^2\,(c+d)^2 f\left(\frac{1}{d^2\,(c+d)^2}4 m\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^{-m}\right.\right.$$

$$\left(-\frac{d\,\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]}{1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}-\right.$$

$$\left.\left(\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\left(d-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\right)\Big/\right.$$

$$\left.\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^2\right)\left(c+\frac{d-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}\right)^{-1-m}$$

$$\left(\frac{1}{c-d}\left((c+d)\left(c^2 C-2 c C d+(-A+B) d^2\right)\text{Hypergeometric2F1}\left[\frac{1}{2}, 1+m, \frac{3}{2},\right.\right.\right.$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big]+2\,d\,\left(c^2\,C-B\,c\,d+A\,d^2\right)\,\text{Hypergeometric2F1}\Big[\frac{1}{2},\,2+m,\,\frac{3}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big]\Bigg)\left(1+\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right)^m+$$

$$\Bigg(3\,C\,(c+d)^3\,\text{AppellF1}\Big[\frac{1}{2},\,m,\,1,\,\frac{3}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d},$$

$$-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2\Big]\Bigg)\Big/\Bigg(\left(1+\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2\right)$$

$$\Bigg(-3\,(c+d)\,\text{AppellF1}\Big[\frac{1}{2},\,m,\,1,\,\frac{3}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d},$$

$$-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2\Big]+2\Bigg((c+d)\,\text{AppellF1}\Big[\frac{3}{2},\,m,\,2,\,\frac{5}{2},$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d},\,-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2\Big]+$$

$$(c-d)\,m\,\text{AppellF1}\Big[\frac{3}{2},\,1+m,\,1,\,\frac{5}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d},$$

$$-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2\Big]\,\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2\Bigg)\Bigg)\Bigg)+\frac{1}{d^2\,(c+d)^2}$$

$$4\,m\,\text{Sec}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2\,\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2\left(1+\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2\right)^{-1-m}$$

$$\left(c+\frac{d-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}\right)^{-m}$$

$$\Bigg(\frac{1}{c-d}\Bigg((c+d)\,\left(c^2\,C-2\,c\,C\,d+(-A+B)\,d^2\right)\,\text{Hypergeometric2F1}\Big[\frac{1}{2},\,1+m,\,\frac{3}{2},$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big]+2\,d\,\left(c^2\,C-B\,c\,d+A\,d^2\right)\,\text{Hypergeometric2F1}\Big[\frac{1}{2},$$

$$2+m,\,\frac{3}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big]\Bigg)\left(1+\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right)^m+$$

$$\Bigg(3\,C\,(c+d)^3\,\text{AppellF1}\Big[\frac{1}{2},\,m,\,1,\,\frac{3}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d},$$

$$-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg]\Bigg)\Bigg/\Bigg(\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)$$

$$\Bigg(-3(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,m,\,1,\,\frac{3}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d},\right.$$

$$\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]+2\Bigg((c+d)\,\text{AppellF1}\left[\frac{3}{2},\,m,\,2,\,\frac{5}{2},\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]+$$

$$(c-d)\,m\,\text{AppellF1}\left[\frac{3}{2},\,1+m,\,1,\,\frac{5}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d},\right.$$

$$\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg)\Bigg)\Bigg)-$$

$$\frac{1}{d^2\,(c+d)^2}2\,\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^{-m}$$

$$\left(c+\frac{d-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}\right)^{-m}$$

$$\Bigg(\frac{1}{c-d}\Bigg((c+d)\,\left(c^2C-2\,c\,C\,d+(-A+B)\,d^2\right)\text{Hypergeometric2F1}\left[\frac{1}{2},\,1+m,\,\frac{3}{2},\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+2\,d\,\left(c^2C-B\,c\,d+A\,d^2\right)\text{Hypergeometric2F1}\left[\frac{1}{2},\right.$$

$$\left.2+m,\,\frac{3}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\Bigg)\left(1+\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right)^m+$$

$$\Bigg(3C\,(c+d)^3\,\text{AppellF1}\left[\frac{1}{2},\,m,\,1,\,\frac{3}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d},\right.$$

$$\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]\Bigg)\Bigg/\Bigg(\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)$$

$$\Bigg(-3(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,m,\,1,\,\frac{3}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d},\right.$$

$$\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]+2\Bigg((c+d)\,\text{AppellF1}\left[\frac{3}{2},\,m,\,2,\,\frac{5}{2},\right.$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg]+$$

$$(c-d)\,m\,\text{AppellF1}\left[\frac{3}{2},\,1+m,\,1,\,\frac{5}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d},\right.$$

$$\left.\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\Bigg)\Bigg)-$$

$$\frac{1}{d^2\,(c+d)^2}4\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{-m}$$

$$\left(c+\frac{d-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}\right)^{-m}$$

$$\left(\frac{1}{c+d}m\left((c+d)\,\left(c^2\,C-2\,c\,C\,d+(-A+B)\,d^2\right)\text{Hypergeometric2F1}\left[\frac{1}{2},\,1+m,\,\frac{3}{2},\right.\right.\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+2\,d\,\left(c^2\,C-B\,c\,d+A\,d^2\right)\text{Hypergeometric2F1}\Big[$$

$$\left.\left.\frac{1}{2},\,2+m,\,\frac{3}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2$$

$$\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\left(1+\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right)^{-1+m}-\left(3\,C\,(c+d)^3\right.$$

$$\text{AppellF1}\left[\frac{1}{2},\,m,\,1,\,\frac{3}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]$$

$$\left.\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\right)\Big/\left(\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^2\right.$$

$$\left(-3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,m,\,1,\,\frac{3}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d},\right.\right.$$

$$\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]+2\left((c+d)\,\text{AppellF1}\left[\frac{3}{2},\,m,\,2,\,\frac{5}{2},\right.\right.$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg]+$$

$$\left.\left.(c-d)\,m\,\text{AppellF1}\left[\frac{3}{2},\,1+m,\,1,\,\frac{5}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d},\right.\right.\right.$$

$$-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg]\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg)\Bigg)+$$

$$\Bigg(3C(c+d)^3\Bigg(-\frac{1}{3}\text{AppellF1}\left[\frac{3}{2},m,2,\frac{5}{2},-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d},$$

$$-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]-$$

$$\frac{1}{3(c+d)}(c-d)\,m\,\text{AppellF1}\left[\frac{3}{2},1+m,1,\frac{5}{2},-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d},$$

$$-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\Bigg)\Bigg)\Bigg/$$

$$\Bigg(\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\Bigg(-3(c+d)\,\text{AppellF1}\left[\frac{1}{2},m,1,\frac{3}{2},\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]+$$

$$2\Bigg((c+d)\,\text{AppellF1}\left[\frac{3}{2},m,2,\frac{5}{2},-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d},\right.$$

$$\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]+(c-d)\,m$$

$$\text{AppellF1}\left[\frac{3}{2},1+m,1,\frac{5}{2},-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d},\right.$$

$$\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg]\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg)\Bigg)-$$

$$\Bigg(3C(c+d)^3\,\text{AppellF1}\left[\frac{1}{2},m,1,\frac{3}{2},-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d},\right.$$

$$\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg]\Bigg(2\Bigg((c+d)\,\text{AppellF1}\left[\frac{3}{2},m,2,\frac{5}{2},\right.\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right]+$$

$$(c-d)\,m\,\text{AppellF1}\left[\frac{3}{2},1+m,1,\frac{5}{2},-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d},\right.$$

$$\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]-$$

$$3\,(c+d)\left(-\frac{1}{3}\,\text{AppellF1}\left[\frac{3}{2},\,m,\,2,\,\frac{5}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d},\right.\right.$$
$$\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]-$$
$$\frac{1}{3\,(c+d)}(c-d)\,m\,\text{AppellF1}\left[\frac{3}{2},\,1+m,\,1,\,\frac{5}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d},\right.$$
$$\left.\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\right)+$$
$$2\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\left((c+d)\left(-\frac{6}{5}\,\text{AppellF1}\left[\frac{5}{2},\,m,\,3,\,\frac{7}{2},\right.\right.\right.$$
$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]$$
$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]-\frac{1}{5\,(c+d)}$$
$$3\,(c-d)\,m\,\text{AppellF1}\left[\frac{5}{2},\,1+m,\,2,\,\frac{7}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d},\,-\text{Tan}\left[\right.\right.$$
$$\left.\left.\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\Bigg)+$$
$$(c-d)\,m\left(-\frac{3}{5}\,\text{AppellF1}\left[\frac{5}{2},\,1+m,\,2,\,\frac{7}{2},\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d},\right.\right.$$
$$\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]-$$
$$\frac{1}{5\,(c+d)}3\,(c-d)\,(1+m)\,\text{AppellF1}\left[\frac{5}{2},\,2+m,\,1,\,\frac{7}{2},\right.$$
$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]$$
$$\left.\left.\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\right)\right)\Bigg)\Bigg)\Bigg/$$
$$\left(\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\left(-3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,m,\,1,\,\frac{3}{2},\right.\right.\right.$$
$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]+$$

$$2\left(\left(c+d\right)\,\text{AppellF1}\left[\frac{3}{2},\,m,\,2,\,\frac{5}{2},\,-\frac{\left(c-d\right)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d},\right.\right.$$
$$\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]+\left(c-d\right)\,m\,\text{AppellF1}\left[\frac{3}{2},\,1+m,\,1,\,\frac{5}{2},\right.$$
$$\left.\left.-\frac{\left(c-d\right)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right]\right)$$
$$\left.\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)+\frac{1}{c-d}\left(1+\frac{\left(c-d\right)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right)^m$$
$$\left(d\,\left(c^2\,C-B\,c\,d+A\,d^2\right)\,\text{Csc}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\,\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\right.$$
$$\left(-\text{Hypergeometric2F1}\left[\frac{1}{2},\,2+m,\,\frac{3}{2},\,-\frac{\left(c-d\right)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\right.$$
$$\left.\left(1+\frac{\left(c-d\right)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right)^{-2-m}\right)+$$
$$\frac{1}{2}\left(c+d\right)\,\left(c^2\,C-2\,c\,C\,d+\left(-A+B\right)\,d^2\right)\,\text{Csc}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\,\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]$$
$$\left(-\text{Hypergeometric2F1}\left[\frac{1}{2},\,1+m,\,\frac{3}{2},\,-\frac{\left(c-d\right)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\right.$$
$$\left.\left.\left.\left.\left(1+\frac{\left(c-d\right)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right)^{-1-m}\right)\right)\right)\right)$$

Problem 27: Result more than twice size of optimal antiderivative.

$$\int\left(a+a\,\text{Sin}\left[e+f\,x\right]\right)^m\,\left(c+d\,\text{Sin}\left[e+f\,x\right]\right)^{3/2}\,\left(A+B\,\text{Sin}\left[e+f\,x\right]+C\,\text{Sin}\left[e+f\,x\right]^2\right)\,\mathbb{d}x$$

Optimal (type 6, 406 leaves, 10 steps):

$$-\frac{2\,C\,\text{Cos}[e+f\,x]\,\left(a+a\,\text{Sin}[e+f\,x]\right)^m\left(c+d\,\text{Sin}[e+f\,x]\right)^{5/2}}{d\,f\,(7+2\,m)}+$$

$$\left(\sqrt{2}\,(c-d)\,\left(2\,c\,(C+2\,C\,m)-d\,(7\,B-5\,C+2\,B\,m+2\,C\,m-A\,(7+2\,m))\right)\right.$$

$$\text{AppellF1}\left[\frac{1}{2}+m,\ \frac{1}{2},\ -\frac{3}{2},\ \frac{3}{2}+m,\ \frac{1}{2}\,(1+\text{Sin}[e+f\,x]),\ -\frac{d\,(1+\text{Sin}[e+f\,x])}{c-d}\right]$$

$$\left.\text{Cos}[e+f\,x]\,\left(a+a\,\text{Sin}[e+f\,x]\right)^m\sqrt{c+d\,\text{Sin}[e+f\,x]}\right)\Big/$$

$$\left(d\,f\,(1+2\,m)\,(7+2\,m)\,\sqrt{1-\text{Sin}[e+f\,x]}\,\sqrt{\frac{c+d\,\text{Sin}[e+f\,x]}{c-d}}\right)-$$

$$\left(\sqrt{2}\,(c-d)\,\left(2\,c\,C\,(1+m)-d\,(2\,C\,m+B\,(7+2\,m))\right)\right.$$

$$\text{AppellF1}\left[\frac{3}{2}+m,\ \frac{1}{2},\ -\frac{3}{2},\ \frac{5}{2}+m,\ \frac{1}{2}\,(1+\text{Sin}[e+f\,x]),\ -\frac{d\,(1+\text{Sin}[e+f\,x])}{c-d}\right]$$

$$\left.\text{Cos}[e+f\,x]\,\left(a+a\,\text{Sin}[e+f\,x]\right)^{1+m}\sqrt{c+d\,\text{Sin}[e+f\,x]}\right)\Big/$$

$$\left(a\,d\,f\,(3+2\,m)\,(7+2\,m)\,\sqrt{1-\text{Sin}[e+f\,x]}\,\sqrt{\frac{c+d\,\text{Sin}[e+f\,x]}{c-d}}\right)$$

Result (type 6, 8472 leaves):

$$\frac{1}{2\,f}\,\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{-2\,m}$$

$$\left(\left(3\,C\,d\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\ -\frac{5}{2}-m,\ -\frac{1}{2},\ \frac{3}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\ \frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right.\right.$$

$$\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{5+2\,m}\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}+\frac{1}{2}(-6-2\,m)}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]$$

$$\left.\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{5}{2}+m}\sqrt{c+d-2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}\right)\Big/\left(-3\,(c+d)\right.$$

$$\text{AppellF1}\left[\frac{1}{2},\ -\frac{5}{2}-m,\ -\frac{1}{2},\ \frac{3}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\ \frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$

$$\left(2\,d\,\text{AppellF1}\left[\frac{3}{2},\ -\frac{5}{2}-m,\ \frac{1}{2},\ \frac{5}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\ \frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\right.$$

$$\left.(c+d)\,(5+2\,m)\,\text{AppellF1}\left[\frac{3}{2},\ -\frac{3}{2}-m,\ -\frac{1}{2},\ \frac{5}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\left.\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)+$$

$$\Bigg(6\,c\,C\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},-\frac{3}{2}-m,-\frac{1}{2},\frac{3}{2},\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,$$

$$\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{3+2m}$$

$$\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}+\frac{1}{2}(-4-2m)}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]$$

$$\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{3}{2}+m}\sqrt{c+d-2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}\Bigg)\Bigg/\Bigg(-3\,(c+d)$$

$$\text{AppellF1}\left[\frac{1}{2},-\frac{3}{2}-m,-\frac{1}{2},\frac{3}{2},\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$

$$\Bigg(2\,d\,\text{AppellF1}\left[\frac{3}{2},-\frac{3}{2}-m,\frac{1}{2},\frac{5}{2},\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$

$$(c+d)\,(3+2\,m)\,\text{AppellF1}\left[\frac{3}{2},-\frac{1}{2}-m,-\frac{1}{2},\frac{5}{2},\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,$$

$$\left.\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)+$$

$$\Bigg(6\,B\,d\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},-\frac{3}{2}-m,-\frac{1}{2},\frac{3}{2},\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,$$

$$\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{3+2m}$$

$$\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}+\frac{1}{2}(-4-2m)}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]$$

$$\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{3}{2}+m}\sqrt{c+d-2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}\Bigg)\Bigg/\Bigg(-3\,(c+d)$$

$$\text{AppellF1}\left[\frac{1}{2},-\frac{3}{2}-m,-\frac{1}{2},\frac{3}{2},\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$

$$\Bigg(2\,d\,\text{AppellF1}\left[\frac{3}{2},-\frac{3}{2}-m,\frac{1}{2},\frac{5}{2},\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$

$$(c+d)\,(3+2\,m)\,\text{AppellF1}\left[\frac{3}{2},-\frac{1}{2}-m,-\frac{1}{2},\frac{5}{2},\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,$$

$$\left.\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)+$$

$$\Bigg(12\,B\,c\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},-\frac{1}{2}-m,-\frac{1}{2},\frac{3}{2},\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{1+2m}$$

$$\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}+\frac{1}{2}(-2-2m)}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]$$

$$\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}+m}\sqrt{c+d-2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}\Bigg)\Bigg/\Bigg(-3\,(c+d)$$

$$\text{AppellF1}\left[\frac{1}{2},-\frac{1}{2}-m,-\frac{1}{2},\frac{3}{2},\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$

$$\Bigg(2\,d\,\text{AppellF1}\left[\frac{3}{2},-\frac{1}{2}-m,\frac{1}{2},\frac{5}{2},\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$

$$(c+d)\,(1+2m)\,\text{AppellF1}\left[\frac{3}{2},\frac{1}{2}-m,-\frac{1}{2},\frac{5}{2},\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$\left.\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)+$$

$$\Bigg(12\,A\,d\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},-\frac{1}{2}-m,-\frac{1}{2},\frac{3}{2},\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{1+2m}$$

$$\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}+\frac{1}{2}(-2-2m)}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]$$

$$\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}+m}\sqrt{c+d-2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}\Bigg)\Bigg/\Bigg(-3\,(c+d)$$

$$\text{AppellF1}\left[\frac{1}{2},-\frac{1}{2}-m,-\frac{1}{2},\frac{3}{2},\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$

$$\Bigg(2\,d\,\text{AppellF1}\left[\frac{3}{2},-\frac{1}{2}-m,\frac{1}{2},\frac{5}{2},\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$

$$(c+d)\,(1+2m)\,\text{AppellF1}\left[\frac{3}{2},\frac{1}{2}-m,-\frac{1}{2},\frac{5}{2},\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$\left.\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)+$$

$$\Bigg(9\,C\,d\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,-\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{3}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{1+2m}$$

$$\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}+\frac{1}{2}(-2-2m)}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]$$

$$\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}+m}\sqrt{c+d-2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}\Bigg)\Bigg/\Bigg(-3\,(c+d)$$

$$\text{AppellF1}\left[\frac{1}{2},\,-\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{3}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$

$$\Bigg(2\,d\,\text{AppellF1}\left[\frac{3}{2},\,-\frac{1}{2}-m,\,\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$

$$(c+d)\,(1+2m)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$\left.\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)-$$

$$\Bigg(12\,A\,c\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{3}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{-1+2m}$$

$$\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}-m}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]$$

$$\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{-\frac{1}{2}+m}\sqrt{c+d-2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}\Bigg)\Bigg/$$

$$\Bigg(3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{3}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]-$$

$$\Bigg(2\,d\,\text{AppellF1}\left[\frac{3}{2},\,\frac{1}{2}-m,\,\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$

$$(c+d)\,(-1+2m)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{3}{2}-m,\,-\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$\left.\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)-$$

$$\left(6\,c\,C\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{3}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right.$$

$$\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{-1+2\,m}\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}-m}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]$$

$$\left.\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{-\frac{1}{2}+m}\sqrt{c+d-2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}\right)\Big/$$

$$\left(3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{3}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]-\right.$$

$$\left(2\,d\,\text{AppellF1}\left[\frac{3}{2},\,\frac{1}{2}-m,\,\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\right.$$

$$(c+d)\,(-1+2\,m)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{3}{2}-m,\,-\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$\left.\left.\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)-$$

$$\left(6\,B\,d\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{3}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right.$$

$$\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{-1+2\,m}\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}-m}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]$$

$$\left.\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{-\frac{1}{2}+m}\sqrt{c+d-2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}\right)\Big/$$

$$\left(3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{3}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]-\right.$$

$$\left(2\,d\,\text{AppellF1}\left[\frac{3}{2},\,\frac{1}{2}-m,\,\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\right.$$

$$(c+d)\,(-1+2\,m)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{3}{2}-m,\,-\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$\left.\left.\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)-$$

$$\left(25\,C\,d\,(c+d)\,\text{AppellF1}\left[\frac{3}{2},\,-\frac{3}{2}-m,\,-\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{3+2m}$$

$$\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}(-3-2m)}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^3$$

$$\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{3}{2}+m}\sqrt{c+d-2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}\Bigg)\Bigg/\Bigg(-5\,(c+d)$$

$$\text{AppellF1}\left[\frac{3}{2},\,-\frac{3}{2}-m,\,-\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$

$$\left(2\,d\,\text{AppellF1}\left[\frac{5}{2},\,-\frac{3}{2}-m,\,\frac{1}{2},\,\frac{7}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\right.$$

$$(c+d)\,(3+2\,m)\,\text{AppellF1}\left[\frac{5}{2},\,-\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{7}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$\left.\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)-$$

$$\left(20\,c\,C\,(c+d)\,\text{AppellF1}\left[\frac{3}{2},\,-\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{1+2m}$$

$$\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}(-1-2m)}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^3$$

$$\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}+m}\sqrt{c+d-2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}\Bigg)\Bigg/\Bigg(-5\,(c+d)$$

$$\text{AppellF1}\left[\frac{3}{2},\,-\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$

$$\left(2\,d\,\text{AppellF1}\left[\frac{5}{2},\,-\frac{1}{2}-m,\,\frac{1}{2},\,\frac{7}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\right.$$

$$(c+d)\,(1+2\,m)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{7}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$\left.\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)-$$

$$\left(20\,B\,d\,(c+d)\,\text{AppellF1}\left[\frac{3}{2},\,-\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{1+2m}$$

$$\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}(-1-2m)}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^3$$

$$\left.\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}+m}\sqrt{c+d-2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}\right)\Big/$$

$$\left(-5\,(c+d)\,\text{AppellF1}\left[\frac{3}{2},\,-\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$

$$\left(2\,d\,\text{AppellF1}\left[\frac{5}{2},\,-\frac{1}{2}-m,\,\frac{1}{2},\,\frac{7}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\right.$$

$$(c+d)\,(1+2\,m)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{7}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$\left.\left.\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)-$$

$$\left(20\,B\,c\,(c+d)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{-1+2m}$$

$$\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}(1-2m)}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^3$$

$$\left.\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{-\frac{1}{2}+m}\sqrt{c+d-2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}\right)\Big/$$

$$\left(3\left(-5\,(c+d)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.\right.$$

$$\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\left(2\,d\,\text{AppellF1}\left[\frac{5}{2},\,\frac{1}{2}-m,\,\frac{1}{2},\,\frac{7}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big] + (c+d)\,(-1+2\,m)\,\text{AppellF1}\Big[\frac{5}{2},\,\frac{3}{2}-m,\,-\frac{1}{2},\,\frac{7}{2},$$

$$\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big]\Big)\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Big)\Big) -$$

$$\Bigg(20\,A\,d\,(c+d)\,\text{AppellF1}\Big[\frac{3}{2},\,\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,$$

$$\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big]\,\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{-1+2\,m}$$

$$\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}(1-2\,m)}\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^3$$

$$\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{-\frac{1}{2}+m}\sqrt{c+d-2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}\Bigg)\Big/$$

$$\Bigg(3\Bigg(-5\,(c+d)\,\text{AppellF1}\Big[\frac{3}{2},\,\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,$$

$$\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big] + \Bigg(2\,d\,\text{AppellF1}\Big[\frac{5}{2},\,\frac{1}{2}-m,\,\frac{1}{2},\,\frac{7}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,$$

$$\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big] + (c+d)\,(-1+2\,m)\,\text{AppellF1}\Big[\frac{5}{2},\,\frac{3}{2}-m,\,-\frac{1}{2},\,\frac{7}{2},$$

$$\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big]\Big)\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)\Bigg) -$$

$$\Bigg(5\,C\,d\,(c+d)\,\text{AppellF1}\Big[\frac{3}{2},\,\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big]$$

$$\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{-1+2\,m}\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}(1-2\,m)}\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^3$$

$$\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{-\frac{1}{2}+m}\sqrt{c+d-2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}\Bigg)\Big/$$

$$\Bigg(-5\,(c+d)\,\text{AppellF1}\Big[\frac{3}{2},\,\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big] +$$

$$\Bigg(2\,d\,\text{AppellF1}\Big[\frac{5}{2},\,\frac{1}{2}-m,\,\frac{1}{2},\,\frac{7}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big] +$$

$$(c+d)\ (-1+2m)\ \text{AppellF1}\left[\frac{5}{2},\ \frac{3}{2}-m,\ -\frac{1}{2},\ \frac{7}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2,\ \frac{2d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2}{c+d}\right]\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2\Bigg) +$$

$$\Bigg(21\,C\,d\,(c+d)\ \text{AppellF1}\left[\frac{5}{2},\ -\frac{1}{2}-m,\ -\frac{1}{2},\ \frac{7}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2,\ \frac{2d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2}{c+d}\right]\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^{1+2m}$$
$$\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2\right)^{\frac{1}{2}(-1-2m)}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^5$$
$$\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2\right)^{\frac{1}{2}+m}\sqrt{c+d-2d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2}\Bigg)\Bigg/$$
$$\Bigg(-7\,(c+d)\ \text{AppellF1}\left[\frac{5}{2},\ -\frac{1}{2}-m,\ -\frac{1}{2},\ \frac{7}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2,\ \frac{2d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2}{c+d}\right] +$$
$$\Bigg(2d\ \text{AppellF1}\left[\frac{7}{2},\ -\frac{1}{2}-m,\ \frac{1}{2},\ \frac{9}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2,\ \frac{2d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2}{c+d}\right] +$$
$$(c+d)\ (1+2m)\ \text{AppellF1}\left[\frac{7}{2},\ \frac{1}{2}-m,\ -\frac{1}{2},\ \frac{9}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2,\ \frac{2d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2}{c+d}\right]\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2\Bigg) +$$

$$\Bigg(14\,c\,C\,(c+d)\ \text{AppellF1}\left[\frac{5}{2},\ \frac{1}{2}-m,\ -\frac{1}{2},\ \frac{7}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2,\ \frac{2d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2}{c+d}\right]\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^{-1+2m}$$
$$\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2\right)^{\frac{1}{2}(1-2m)}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^5$$
$$\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2\right)^{-\frac{1}{2}+m}\sqrt{c+d-2d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2}\Bigg)\Bigg/$$
$$\Bigg(5\left(-7\,(c+d)\ \text{AppellF1}\left[\frac{5}{2},\ \frac{1}{2}-m,\ -\frac{1}{2},\ \frac{7}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2,\right.\right.$$

$$\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big] + \Bigg(2\,d\,\text{AppellF1}\Big[\frac{7}{2},\ \frac{1}{2}-m,\ \frac{1}{2},\ \frac{9}{2},\ \text{Sin}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2,$$

$$\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big] + (c+d)\,(-1+2\,m)\,\text{AppellF1}\Big[\frac{7}{2},\ \frac{3}{2}-m,\ -\frac{1}{2},\ \frac{9}{2},$$

$$\text{Sin}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2,\ \frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big]\Bigg)\,\text{Sin}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2\Bigg) +$$

$$\Bigg(14\,B\,d\,(c+d)\,\text{AppellF1}\Big[\frac{5}{2},\ \frac{1}{2}-m,\ -\frac{1}{2},\ \frac{7}{2},\ \text{Sin}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2,$$

$$\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big]\,\text{Cos}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^{-1+2\,m}$$

$$\left(\text{Cos}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2\right)^{\frac{1}{2}(1-2\,m)}\,\text{Sin}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^5$$

$$\left(1-\text{Sin}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2\right)^{-\frac{1}{2}+m}\sqrt{c+d-2\,d\,\text{Sin}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2}\Bigg)\Big/$$

$$\Bigg(5\Bigg(-7\,(c+d)\,\text{AppellF1}\Big[\frac{5}{2},\ \frac{1}{2}-m,\ -\frac{1}{2},\ \frac{7}{2},\ \text{Sin}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2,$$

$$\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big] + \Bigg(2\,d\,\text{AppellF1}\Big[\frac{7}{2},\ \frac{1}{2}-m,\ \frac{1}{2},\ \frac{9}{2},\ \text{Sin}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2,$$

$$\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big] + (c+d)\,(-1+2\,m)\,\text{AppellF1}\Big[\frac{7}{2},\ \frac{3}{2}-m,\ -\frac{1}{2},\ \frac{9}{2},$$

$$\text{Sin}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2,\ \frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big]\Bigg)\,\text{Sin}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2\Bigg) -$$

$$\Bigg(9\,C\,d\,(c+d)\,\text{AppellF1}\Big[\frac{7}{2},\ \frac{1}{2}-m,\ -\frac{1}{2},\ \frac{9}{2},\ \text{Sin}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2,\ \frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big]$$

$$\text{Cos}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^{-1+2\,m}\left(\text{Cos}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2\right)^{\frac{1}{2}(1-2\,m)}\,\text{Sin}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^7$$

$$\left(1-\text{Sin}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2\right)^{-\frac{1}{2}+m}\sqrt{c+d-2\,d\,\text{Sin}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2}\Bigg)\Big/$$

$$\Bigg(7\Bigg(-9\,(c+d)\,\text{AppellF1}\Big[\frac{7}{2},\ \frac{1}{2}-m,\ -\frac{1}{2},\ \frac{9}{2},\ \text{Sin}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2,$$

$$\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big] +$$

$$\left(2\,d\,\text{AppellF1}\left[\frac{9}{2},\ \frac{1}{2}-m,\ \frac{1}{2},\ \frac{11}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\ \frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right] +\right.$$

$$\left.(c+d)\,(-1+2\,m)\,\text{AppellF1}\left[\frac{9}{2},\ \frac{3}{2}-m,\ -\frac{1}{2},\ \frac{11}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\ \frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)$$

$$\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Big)\Big)\,(a+a\,\text{Sin}[e+f\,x])^m$$

Problem 28: Result more than twice size of optimal antiderivative.

$$\int (a+a\,\text{Sin}[e+f\,x])^m\,\sqrt{c+d\,\text{Sin}[e+f\,x]}\,\left(A+B\,\text{Sin}[e+f\,x]+C\,\text{Sin}[e+f\,x]^2\right)\,dx$$

Optimal (type 6, 396 leaves, 10 steps):

$$-\frac{2\,C\,\text{Cos}[e+f\,x]\,(a+a\,\text{Sin}[e+f\,x])^m\,(c+d\,\text{Sin}[e+f\,x])^{3/2}}{d\,f\,(5+2\,m)}+$$

$$\left(\sqrt{2}\,\left(2\,c\,(C+2\,C\,m)-d\,(5\,B-3\,C+2\,B\,m+2\,C\,m-A\,(5+2\,m))\right)\right.$$

$$\text{AppellF1}\left[\frac{1}{2}+m,\ \frac{1}{2},\ -\frac{1}{2},\ \frac{3}{2}+m,\ \frac{1}{2}\,(1+\text{Sin}[e+f\,x]),\ -\frac{d\,(1+\text{Sin}[e+f\,x])}{c-d}\right]$$

$$\left.\text{Cos}[e+f\,x]\,(a+a\,\text{Sin}[e+f\,x])^m\,\sqrt{c+d\,\text{Sin}[e+f\,x]}\right)\Big/$$

$$\left(d\,f\,(1+2\,m)\,(5+2\,m)\,\sqrt{1-\text{Sin}[e+f\,x]}\,\sqrt{\frac{c+d\,\text{Sin}[e+f\,x]}{c-d}}\right)-$$

$$\left(\sqrt{2}\,\left(2\,c\,C\,(1+m)-d\,(2\,C\,m+B\,(5+2\,m))\right)\,\text{AppellF1}\left[\frac{3}{2}+m,\ \frac{1}{2},\ -\frac{1}{2},\ \frac{5}{2}+m,\ \frac{1}{2}\,(1+\text{Sin}[e+f\,x]),\right.\right.$$

$$\left.\left.-\frac{d\,(1+\text{Sin}[e+f\,x])}{c-d}\right]\,\text{Cos}[e+f\,x]\,(a+a\,\text{Sin}[e+f\,x])^{1+m}\,\sqrt{c+d\,\text{Sin}[e+f\,x]}\right)\Big/$$

$$\left(a\,d\,f\,(3+2\,m)\,(5+2\,m)\,\sqrt{1-\text{Sin}[e+f\,x]}\,\sqrt{\frac{c+d\,\text{Sin}[e+f\,x]}{c-d}}\right)$$

Result (type 6, 3138 leaves):

$$\frac{1}{2\,f}\,\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{-2\,m}$$

$$\left(\left(6\,C\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\ -\frac{3}{2}-m,\ -\frac{1}{2},\ \frac{3}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\ \frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right.\right.$$

$$\cos\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^{3+2m}\left(\cos\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^{\frac{1}{2}+\frac{1}{2}(-4-2m)}\sin\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]$$
$$\left(1-\sin\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^{\frac{3}{2}+m}\sqrt{c+d-2 d \sin\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}\Bigg/\Bigg(-3(c+d)$$
$$\text{AppellF1}\left[\frac{1}{2},-\frac{3}{2}-m,-\frac{1}{2},\frac{3}{2},\sin\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\frac{2 d \sin\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+$$
$$\Bigg(2 d\,\text{AppellF1}\left[\frac{3}{2},-\frac{3}{2}-m,\frac{1}{2},\frac{5}{2},\sin\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\frac{2 d \sin\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+$$
$$(c+d)(3+2m)\,\text{AppellF1}\left[\frac{3}{2},-\frac{1}{2}-m,-\frac{1}{2},\frac{5}{2},\sin\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\frac{2 d \sin\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\Bigg)\sin\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2+$$
$$\Bigg(12 B(c+d)\,\text{AppellF1}\left[\frac{1}{2},-\frac{1}{2}-m,-\frac{1}{2},\frac{3}{2},\sin\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\frac{2 d \sin\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]$$
$$\cos\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^{1+2m}\left(\cos\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^{\frac{1}{2}+\frac{1}{2}(-2-2m)}\sin\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]$$
$$\left(1-\sin\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^{\frac{1}{2}+m}\sqrt{c+d-2 d \sin\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}\Bigg/\Bigg(-3(c+d)$$
$$\text{AppellF1}\left[\frac{1}{2},-\frac{1}{2}-m,-\frac{1}{2},\frac{3}{2},\sin\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\frac{2 d \sin\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+$$
$$\Bigg(2 d\,\text{AppellF1}\left[\frac{3}{2},-\frac{1}{2}-m,\frac{1}{2},\frac{5}{2},\sin\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\frac{2 d \sin\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+$$
$$(c+d)(1+2m)\,\text{AppellF1}\left[\frac{3}{2},\frac{1}{2}-m,-\frac{1}{2},\frac{5}{2},\sin\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\frac{2 d \sin\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\Bigg)\sin\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2-$$
$$\Bigg(12 A(c+d)\,\text{AppellF1}\left[\frac{1}{2},\frac{1}{2}-m,-\frac{1}{2},\frac{3}{2},\sin\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\frac{2 d \sin\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]$$
$$\cos\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^{-1+2m}\left(\cos\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^{\frac{1}{2}-m}\sin\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]$$
$$\left(1-\sin\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^{-\frac{1}{2}+m}\sqrt{c+d-2 d \sin\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}\Bigg/$$

$$\left(3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{3}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]-\right.$$

$$\left(2\,d\,\text{AppellF1}\left[\frac{3}{2},\,\frac{1}{2}-m,\,\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\right.$$

$$(c+d)\,(-1+2\,m)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{3}{2}-m,\,-\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$\left.\left.\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)-$$

$$\left(6\,C\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{3}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right.$$

$$\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{-1+2\,m}\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}-m}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]$$

$$\left.\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{-\frac{1}{2}+m}\sqrt{c+d-2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}\right)\Big/$$

$$\left(3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{3}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]-\right.$$

$$\left(2\,d\,\text{AppellF1}\left[\frac{3}{2},\,\frac{1}{2}-m,\,\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\right.$$

$$(c+d)\,(-1+2\,m)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{3}{2}-m,\,-\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$\left.\left.\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)-$$

$$\left(20\,C\,(c+d)\,\text{AppellF1}\left[\frac{3}{2},\,-\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right.$$

$$\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{1+2\,m}\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}(-1-2\,m)}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^3$$

$$\left.\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}+m}\sqrt{c+d-2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}\right)\Big/\left(-5\,(c+d)\right.$$

$$\text{AppellF1}\left[\frac{3}{2},\,-\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$

$$\left(2\,d\,\text{AppellF1}\left[\frac{5}{2},\,-\frac{1}{2}-m,\,\frac{1}{2},\,\frac{7}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\right.$$

$$\left.(c+d)\,(1+2\,m)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{7}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\left.\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)-$$

$$\left(20\,B\,(c+d)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right.$$

$$\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{-1+2\,m}\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}(1-2\,m)}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^3$$

$$\left.\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{-\frac{1}{2}+m}\sqrt{c+d-2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}\right)\Big/$$

$$\left(3\left(-5\,(c+d)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{5}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.\right.$$

$$\left.\left.\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\left(2\,d\,\text{AppellF1}\left[\frac{5}{2},\,\frac{1}{2}-m,\,\frac{1}{2},\,\frac{7}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.\right.$$

$$\left.\left.\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+(c+d)\,(-1+2\,m)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{3}{2}-m,\,-\frac{1}{2},\,\frac{7}{2},\right.\right.\right.$$

$$\left.\left.\left.\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\right)+$$

$$\left(14\,C\,(c+d)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{7}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right.$$

$$\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{-1+2\,m}\left(\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{\frac{1}{2}(1-2\,m)}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^5$$

$$\left.\left(1-\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{-\frac{1}{2}+m}\sqrt{c+d-2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}\right)\Big/$$

$$\left(5\left(-7\,(c+d)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{1}{2}-m,\,-\frac{1}{2},\,\frac{7}{2},\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.\right.$$

$$\left.\left.\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\right.\right.$$

$$\left(2\,d\,\text{AppellF1}\left[\frac{7}{2},\ \frac{1}{2}-m,\ \frac{1}{2},\ \frac{9}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\ \frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\right.$$
$$(c+d)\,(-1+2\,m)\,\text{AppellF1}\left[\frac{7}{2},\ \frac{3}{2}-m,\ -\frac{1}{2},\ \frac{9}{2},\ \text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$
$$\left.\left.\left.\frac{2\,d\,\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\right)\Big)\,(a+a\,\text{Sin}[e+f\,x])^m$$

Problem 29: Result more than twice size of optimal antiderivative.

$$\int\frac{(a+a\,\text{Sin}[e+f\,x])^m\,(A+B\,\text{Sin}[e+f\,x]+C\,\text{Sin}[e+f\,x]^2)}{\sqrt{c+d\,\text{Sin}[e+f\,x]}}\,dx$$

Optimal (type 6, 389 leaves, 10 steps):

$$-\frac{2\,C\,\text{Cos}[e+f\,x]\,(a+a\,\text{Sin}[e+f\,x])^m\sqrt{c+d\,\text{Sin}[e+f\,x]}}{d\,f\,(3+2\,m)}+$$
$$\left(\sqrt{2}\,(2\,c\,(C+2\,C\,m)-d\,(3\,B-C+2\,B\,m+2\,C\,m-A\,(3+2\,m)))\right.$$
$$\text{AppellF1}\left[\frac{1}{2}+m,\ \frac{1}{2},\ \frac{1}{2},\ \frac{3}{2}+m,\ \frac{1}{2}\,(1+\text{Sin}[e+f\,x]),\ -\frac{d\,(1+\text{Sin}[e+f\,x])}{c-d}\right]$$
$$\left.\text{Cos}[e+f\,x]\,(a+a\,\text{Sin}[e+f\,x])^m\sqrt{\frac{c+d\,\text{Sin}[e+f\,x]}{c-d}}\right)\Big/$$
$$\left(d\,f\,(1+2\,m)\,(3+2\,m)\,\sqrt{1-\text{Sin}[e+f\,x]}\,\sqrt{c+d\,\text{Sin}[e+f\,x]}\right)-$$
$$\left(\sqrt{2}\,(2\,c\,C\,(1+m)-d\,(2\,C\,m+B\,(3+2\,m)))\,\text{AppellF1}\left[\frac{3}{2}+m,\ \frac{1}{2},\ \frac{1}{2},\ \frac{5}{2}+m,\ \frac{1}{2}\,(1+\text{Sin}[e+f\,x]),\right.\right.$$
$$\left.\left.-\frac{d\,(1+\text{Sin}[e+f\,x])}{c-d}\right]\text{Cos}[e+f\,x]\,(a+a\,\text{Sin}[e+f\,x])^{1+m}\sqrt{\frac{c+d\,\text{Sin}[e+f\,x]}{c-d}}\right)\Big/$$
$$\left(a\,d\,f\,(3+2\,m)^2\,\sqrt{1-\text{Sin}[e+f\,x]}\,\sqrt{c+d\,\text{Sin}[e+f\,x]}\right)$$

Result (type 6, 11 893 leaves):

$$-\left(\left(2\,(c+d)\,\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{-1-2\,m}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\right.\right.$$

$$\left(a+a\,\text{Sin}[e+f\,x]\right)^m\left(-\frac{2\,A\,\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{2m}}{\sqrt{c+d\,\text{Sin}[e+f\,x]}}-\frac{C\,\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{2m}}{\sqrt{c+d\,\text{Sin}[e+f\,x]}}-\right.$$

$$\left.\frac{C\,\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{2m}\text{Cos}\left[2\left(-e+\frac{\pi}{2}-f\,x\right)\right]}{\sqrt{c+d\,\text{Sin}[e+f\,x]}}-\frac{2\,B\,\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^{2m}\text{Sin}[e+f\,x]}{\sqrt{c+d\,\text{Sin}[e+f\,x]}}\right)$$

$$\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{-2-m}\sqrt{\frac{c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}}$$

$$\left(\left(9\left(A\left(c-3\,d\right)+C\left(-3\,c+d\right)+B\left(c+d\right)\right)\text{AppellF1}\left[\frac{1}{2},\,\frac{5}{2}+m,\,-\frac{1}{2},\right.\right.\right.$$

$$\left.\left.\frac{3}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{\left(c-d\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\Big/$$

$$\left(3\left(c+d\right)\text{AppellF1}\left[\frac{1}{2},\,\frac{5}{2}+m,\,-\frac{1}{2},\,\frac{3}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\left.\left.-\frac{\left(c-d\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\left(\left(c-d\right)\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\,\frac{1}{2},\right.\right.\right.$$

$$\left.\left.\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{\left(c-d\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]-\right.$$

$$\left.\left.\left(c+d\right)\left(5+2\,m\right)\text{AppellF1}\left[\frac{3}{2},\,\frac{7}{2}+m,\,-\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.\right.$$

$$\left.\left.\left.-\frac{\left(c-d\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)-$$

$$\left(36\left(c^2\,C-B\,c\,d+A\,d^2\right)\text{AppellF1}\left[\frac{1}{2},\,\frac{5}{2}+m,\,\frac{1}{2},\,\frac{3}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\left.\left.-\frac{\left(c-d\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\Big/$$

$$\left(\left(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\right.$$

$$\left(-3\left(c+d\right)\text{AppellF1}\left[\frac{1}{2},\,\frac{5}{2}+m,\,\frac{1}{2},\,\frac{3}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big]+\Bigg((c-d)\,\text{AppellF1}\Big[\frac{3}{2},\,\frac{5}{2}+m,\,\frac{3}{2},\,\frac{5}{2},$$

$$-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big]+(c+d)$$

$$(5+2\,m)\,\text{AppellF1}\Big[\frac{3}{2},\,\frac{7}{2}+m,\,\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big]\Bigg)\,\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2\Bigg)+$$

$$\Bigg(5\,(A-B+C)\,(c-d)\,\text{AppellF1}\Big[\frac{3}{2},\,\frac{5}{2}+m,\,-\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big]\,\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2\Bigg)\Big/$$

$$\Bigg(5\,(c+d)\,\text{AppellF1}\Big[\frac{3}{2},\,\frac{5}{2}+m,\,-\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big]+\Bigg((c-d)\,\text{AppellF1}\Big[\frac{5}{2},\,\frac{5}{2}+m,\,\frac{1}{2},$$

$$\frac{7}{2},\,-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big]-$$

$$(c+d)\,(5+2\,m)\,\text{AppellF1}\Big[\frac{5}{2},\,\frac{7}{2}+m,\,-\frac{1}{2},\,\frac{7}{2},\,-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Big]\,\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2\Bigg)\Bigg)\Bigg)\Big/$$

$$\Bigg(3\,(c-d)^2\,f\,\Bigg(-\frac{1}{3\,(c-d)^2}4\,(c+d)\,(-2-m)\,\text{Sec}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2$$

$$\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2\left(1+\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2\right)^{-3-m}$$

$$\sqrt{\left(\left(c+d+c\,\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2-d\,\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\Big]^2\right)\Big/\right.}$$

$$\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\left(\left(9\left(A\left(c-3d\right)+C\left(-3c+d\right)+B\left(c+d\right)\right)\text{AppellF1}\left[\frac{1}{2},\right.\right.\right.$$

$$\left.\left.\left.\frac{5}{2}+m,-\frac{1}{2},\frac{3}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,-\frac{\left(c-d\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\right)\Big/$$

$$\left(3\left(c+d\right)\text{AppellF1}\left[\frac{1}{2},\frac{5}{2}+m,-\frac{1}{2},\frac{3}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.\right.$$

$$\left.-\frac{\left(c-d\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+\left(\left(c-d\right)\text{AppellF1}\left[\frac{3}{2},\frac{5}{2}+m,\frac{1}{2},\right.\right.$$

$$\left.\left.\frac{5}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,-\frac{\left(c-d\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]-\right.$$

$$\left.\left.\left(c+d\right)\left(5+2m\right)\text{AppellF1}\left[\frac{3}{2},\frac{7}{2}+m,-\frac{1}{2},\frac{5}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.\right.\right.$$

$$\left.\left.\left.-\frac{\left(c-d\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)-$$

$$\left(36\left(c^2C-Bcd+Ad^2\right)\text{AppellF1}\left[\frac{1}{2},\frac{5}{2}+m,\frac{1}{2},\frac{3}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.\right.$$

$$\left.\left.-\frac{\left(c-d\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\right)\Big/$$

$$\left(\left(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\right.$$

$$\left(-3\left(c+d\right)\text{AppellF1}\left[\frac{1}{2},\frac{5}{2}+m,\frac{1}{2},\frac{3}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.\right.$$

$$\left.-\frac{\left(c-d\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+\left(\left(c-d\right)\text{AppellF1}\left[\frac{3}{2},\frac{5}{2}+m,\frac{3}{2},\right.\right.$$

$$\left.\left.\frac{5}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,-\frac{\left(c-d\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+\right.$$

$$\left.\left.\left(c+d\right)\left(5+2m\right)\text{AppellF1}\left[\frac{3}{2},\frac{7}{2}+m,\frac{1}{2},\frac{5}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.\right.\right.$$

$$\left.\left.\left.-\frac{\left(c-d\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\right)+$$

$$\left(5\,(A-B+C)\,(c-d)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\,-\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$
$$\left.\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\Big/$$
$$\left(5\,(c+d)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\,-\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$
$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\left((c-d)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{5}{2}+m,\,\frac{1}{2},\right.\right.$$
$$\left.\frac{7}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]-$$
$$(c+d)\,(5+2\,m)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{7}{2}+m,\,-\frac{1}{2},\,\frac{7}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$
$$\left.\left.\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\right)-$$
$$\frac{1}{3\,(c-d)^2}2\,(c+d)\,\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{-2-m}$$
$$\sqrt{\left(\frac{c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}\right)}$$
$$\left(\left(9\,(A\,(c-3\,d)+C\,(-3\,c+d)+B\,(c+d))\,\text{AppellF1}\left[\frac{1}{2},\,\frac{5}{2}+m,\,-\frac{1}{2},\,\frac{3}{2},\right.\right.\right.$$
$$\left.\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\Big/$$
$$\left(3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{5}{2}+m,\,-\frac{1}{2},\,\frac{3}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$
$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\left((c-d)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\,\frac{1}{2},\right.\right.$$
$$\left.\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]-$$
$$(c+d)\,(5+2\,m)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{7}{2}+m,\,-\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Bigg]\Bigg)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)-$$

$$\Bigg(36\left(c^2\,C-B\,c\,d+A\,d^2\right)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{5}{2}+m,\,\frac{1}{2},\,\frac{3}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Bigg]\Bigg)\Big/$$

$$\Bigg(\left(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)$$

$$\Bigg(-3\left(c+d\right)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{5}{2}+m,\,\frac{1}{2},\,\frac{3}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Bigg]+\Bigg(\left(c-d\right)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\,\frac{3}{2},\right.$$

$$\left.\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$

$$\left(c+d\right)\,\left(5+2\,m\right)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{7}{2}+m,\,\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Bigg]\Bigg)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)\Bigg)+$$

$$\Bigg(5\left(A-B+C\right)\,\left(c-d\right)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\,-\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Bigg]\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)\Big/$$

$$\Bigg(5\left(c+d\right)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\,-\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Bigg]+\Bigg(\left(c-d\right)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{5}{2}+m,\,\frac{1}{2},\right.$$

$$\left.\frac{7}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]-$$

$$\left(c+d\right)\,\left(5+2\,m\right)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{7}{2}+m,\,-\frac{1}{2},\,\frac{7}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Bigg]\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg)\Bigg)-$$

$$\frac{1}{3\,(c-d)^2\sqrt{\frac{c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}}}\,2\,(c+d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]$$

$$\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^{-2-m}$$

$$\Bigg(\Bigg(c\,\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]-$$

$$d\,\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\Bigg)\Big/\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)-$$

$$\left(\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\left(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2-\right.\right.$$

$$\left.\left.d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\right)\Big/\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^2\Bigg)$$

$$\Bigg(\Bigg(9\,(A\,(c-3d)+C\,(-3c+d)+B\,(c+d))\,\text{AppellF1}\left[\frac{1}{2},\frac{5}{2}+m,-\frac{1}{2},\frac{3}{2},\right.$$

$$\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\Big/$$

$$\Bigg(3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\frac{5}{2}+m,-\frac{1}{2},\frac{3}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+\Bigg((c-d)\,\text{AppellF1}\left[\frac{3}{2},\frac{5}{2}+m,\frac{1}{2},\right.$$

$$\left.\frac{5}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]-$$

$$(c+d)\,(5+2m)\,\text{AppellF1}\left[\frac{3}{2},\frac{7}{2}+m,-\frac{1}{2},\frac{5}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg)-$$

$$\Bigg(36\,(c^2C-Bcd+Ad^2)\,\text{AppellF1}\left[\frac{1}{2},\frac{5}{2}+m,\frac{1}{2},\frac{3}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\Big/$$

$$\left(\left(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\right.$$
$$\left(-3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{5}{2}+m,\,\frac{1}{2},\,\frac{3}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$
$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\left(\left(c-d\right)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\,\frac{3}{2},\right.\right.$$
$$\left.\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$
$$(c+d)\,(5+2\,m)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{7}{2}+m,\,\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$
$$\left.\left.\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\right)+$$
$$\left(5\,(A-B+C)\,(c-d)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\,-\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$
$$\left.\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\Big/$$
$$\left(5\,(c+d)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\,-\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$
$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\left(\left(c-d\right)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{5}{2}+m,\,\frac{1}{2},\right.\right.$$
$$\left.\frac{7}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]-$$
$$(c+d)\,(5+2\,m)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{7}{2}+m,\,-\frac{1}{2},\,\frac{7}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$
$$\left.\left.\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\right)-$$
$$\frac{1}{3\,(c-d)^2}4\,(c+d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{-2-m}$$
$$\sqrt{\left(\frac{c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}\right)}$$

$$\left(\left(9\left(A\left(c-3d\right)+C\left(-3c+d\right)+B\left(c+d\right)\right)\left(\frac{1}{6\left(c+d\right)}\left(c-d\right)\text{AppellF1}\left[\frac{3}{2},\frac{5}{2}+m,\right.\right.\right.\right.$$

$$\left.\left.\left.\left.\frac{1}{2},\frac{5}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2,-\frac{\left(c-d\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2}{c+d}\right]\right.\right.\right.$$

$$\left.\left.\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]-\frac{1}{3}\left(\frac{5}{2}+m\right)\text{AppellF1}\left[\frac{3}{2},\right.\right.\right.$$

$$\left.\left.\left.\frac{7}{2}+m,-\frac{1}{2},\frac{5}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2,-\frac{\left(c-d\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2}{c+d}\right]\right.\right.$$

$$\left.\left.\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]\right)\right)\Big/$$

$$\left(3\left(c+d\right)\text{AppellF1}\left[\frac{1}{2},\frac{5}{2}+m,-\frac{1}{2},\frac{3}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2,\right.\right.$$

$$\left.\left.-\frac{\left(c-d\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2}{c+d}\right]+\left(\left(c-d\right)\text{AppellF1}\left[\frac{3}{2},\frac{5}{2}+m,\frac{1}{2},\right.\right.\right.$$

$$\left.\left.\left.\frac{5}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2,-\frac{\left(c-d\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2}{c+d}\right]-\right.\right.$$

$$\left.\left.\left(c+d\right)\left(5+2m\right)\text{AppellF1}\left[\frac{3}{2},\frac{7}{2}+m,-\frac{1}{2},\frac{5}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2,\right.\right.\right.$$

$$\left.\left.\left.-\frac{\left(c-d\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2}{c+d}\right]\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2\right)+$$

$$\left(36\left(c^2C-Bcd+Ad^2\right)\text{AppellF1}\left[\frac{1}{2},\frac{5}{2}+m,\frac{1}{2},\frac{3}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2,\right.\right.$$

$$\left.\left.-\frac{\left(c-d\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2}{c+d}\right]\left(c\,\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2\right.\right.$$

$$\left.\left.\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]-d\,\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]\right)\right)\Big/$$

$$\left(\left(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2\right)^2\right.$$

$$\left(-3\left(c+d\right)\text{AppellF1}\left[\frac{1}{2},\frac{5}{2}+m,\frac{1}{2},\frac{3}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2,\right.\right.$$

$$\left.\left.-\frac{\left(c-d\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2}{c+d}\right]+\left(\left(c-d\right)\text{AppellF1}\left[\frac{3}{2},\frac{5}{2}+m,\frac{3}{2},\right.\right.\right.$$

$$\frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big] +$$
$$(c+d)\,(5+2m)\,\text{AppellF1}\Big[\frac{3}{2}, \frac{7}{2}+m, \frac{1}{2}, \frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$
$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big)\Big) -$$

$$\Big(36\,\left(c^2 C - B c d + A d^2\right)\,\Big(-\frac{1}{6\,(c+d)}(c-d)\,\text{AppellF1}\Big[\frac{3}{2}, \frac{5}{2}+m, \frac{3}{2}, \frac{5}{2},$$
$$-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]$$
$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right] - \frac{1}{3}\left(\frac{5}{2}+m\right)\text{AppellF1}\Big[\frac{3}{2},$$
$$\frac{7}{2}+m, \frac{1}{2}, \frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]$$
$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\Big)\Big)\Big/$$
$$\Big(\Big(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 - d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big)$$
$$\Big(-3\,(c+d)\,\text{AppellF1}\Big[\frac{1}{2}, \frac{5}{2}+m, \frac{1}{2}, \frac{3}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$
$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big] + \Big((c-d)\,\text{AppellF1}\Big[\frac{3}{2}, \frac{5}{2}+m, \frac{3}{2},$$
$$\frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big] +$$
$$(c+d)\,(5+2m)\,\text{AppellF1}\Big[\frac{3}{2}, \frac{7}{2}+m, \frac{1}{2}, \frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$
$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big)\Big) +$$

$$\Big(5\,(A-B+C)\,(c-d)\,\text{AppellF1}\Big[\frac{3}{2}, \frac{5}{2}+m, -\frac{1}{2}, \frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$
$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\,\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\Big)\Big/$$

$$\left(5\,(c+d)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\,-\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$
$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\left(\left(c-d\right)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{5}{2}+m,\,\frac{1}{2},\right.\right.$$
$$\left.\frac{7}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]-$$
$$(c+d)\,(5+2\,m)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{7}{2}+m,\,-\frac{1}{2},\,\frac{7}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$
$$\left.\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)+$$

$$\left(5\,(A-B+C)\,(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\left(\frac{1}{10\,(c+d)}3\,(c-d)\,\text{AppellF1}\left[\right.\right.\right.$$
$$\left.\frac{5}{2},\,\frac{5}{2}+m,\,\frac{1}{2},\,\frac{7}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]$$
$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]-\frac{3}{5}\left(\frac{5}{2}+m\right)\text{AppellF1}\left[\frac{5}{2},\right.$$
$$\left.\left.\frac{7}{2}+m,\,-\frac{1}{2},\,\frac{7}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right.$$
$$\left.\left.\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\right)\right)\Bigg/$$

$$\left(5\,(c+d)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\,-\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$
$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\left(\left(c-d\right)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{5}{2}+m,\,\frac{1}{2},\right.\right.$$
$$\left.\frac{7}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]-$$
$$(c+d)\,(5+2\,m)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{7}{2}+m,\,-\frac{1}{2},\,\frac{7}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$
$$\left.\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)-$$

$$\left(9\,\left(A\,(c-3\,d)+C\,(-3\,c+d)+B\,(c+d)\right)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{5}{2}+m,\,-\frac{1}{2},\,\frac{3}{2},\right.\right.$$

$$-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ -\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]$$

$$\Bigg(\Bigg((c-d)\ \text{AppellF1}\left[\frac{3}{2},\ \frac{5}{2}+m,\ \frac{1}{2},\ \frac{5}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$

$$\left.-\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]-(c+d)\ (5+2m)\ \text{AppellF1}\left[\frac{3}{2},\ \frac{7}{2}+m,\right.$$

$$\left.-\frac{1}{2},\ \frac{5}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ -\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\Bigg)$$

$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]+3\ (c+d)$$

$$\Bigg(\frac{1}{6\ (c+d)}(c-d)\ \text{AppellF1}\left[\frac{3}{2},\ \frac{5}{2}+m,\ \frac{1}{2},\ \frac{5}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$

$$\left.-\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2$$

$$\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]-\frac{1}{3}\left(\frac{5}{2}+m\right)\text{AppellF1}\left[\frac{3}{2},\ \frac{7}{2}+m,\ -\frac{1}{2},\ \frac{5}{2},\right.$$

$$\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ -\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]$$

$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\Bigg)+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2$$

$$\Bigg((c-d)\ \Bigg(-\frac{1}{10\ (c+d)}3\ (c-d)\ \text{AppellF1}\left[\frac{5}{2},\ \frac{5}{2}+m,\ \frac{3}{2},\ \frac{7}{2},\ -\text{Tan}\left[\frac{1}{2}\right.\right.$$

$$\left.\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ -\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\text{Sec}\left[\frac{1}{2}\left(-e+\right.\right.$$

$$\left.\left.\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]-\frac{3}{5}\left(\frac{5}{2}+m\right)\text{AppellF1}\left[\frac{5}{2},\ \frac{7}{2}+\right.$$

$$\left.m,\ \frac{1}{2},\ \frac{7}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ -\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]$$

$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\Bigg)-(c+d)\ (5+2m)$$

$$\Bigg(\frac{1}{10\ (c+d)}3\ (c-d)\ \text{AppellF1}\left[\frac{5}{2},\ \frac{7}{2}+m,\ \frac{1}{2},\ \frac{7}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$

$$\left.-\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2$$

$$\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]-\frac{3}{5}\left(\frac{7}{2}+m\right)\text{AppellF1}\left[\frac{5}{2},\ \frac{9}{2}+m,\ -\frac{1}{2},\ \frac{7}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ -\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]$$
$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\Bigg)\Bigg)\Bigg)\Bigg)\Bigg/$$
$$\Bigg(3\left(c+d\right)\text{AppellF1}\left[\frac{1}{2},\ \frac{5}{2}+m,\ -\frac{1}{2},\ \frac{3}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ -\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+\Bigg((c-d)\ \text{AppellF1}\left[\frac{3}{2},\ \frac{5}{2}+m,\ \frac{1}{2},\ \frac{5}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ -\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]-\left(c+d\right)\left(5+2m\right)\text{AppellF1}\left[\frac{3}{2},\ \frac{7}{2}+m,\ -\frac{1}{2},\ \frac{5}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ -\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\Bigg)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg)^2+$$
$$\Bigg(36\left(c^2C-Bcd+Ad^2\right)\text{AppellF1}\left[\frac{1}{2},\ \frac{5}{2}+m,\ \frac{1}{2},\ \frac{3}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ -\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\Bigg(\Bigg(\Bigg((c-d)\ \text{AppellF1}\left[\frac{3}{2},\ \frac{5}{2}+m,\ \frac{3}{2},\ \frac{5}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ -\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+\left(c+d\right)\left(5+2m\right)\text{AppellF1}\left[\frac{3}{2},\ \frac{7}{2}+m,\ \frac{1}{2},\ \frac{5}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ -\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\Bigg)\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2$$
$$\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]-3\left(c+d\right)\Bigg(-\frac{1}{6\left(c+d\right)}(c-d)\ \text{AppellF1}\left[\frac{3}{2},\ \frac{5}{2}+m,\ \frac{3}{2},\ \frac{5}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ -\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]$$
$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]-\frac{1}{3}\left(\frac{5}{2}+m\right)\text{AppellF1}\left[\frac{3}{2},\right.$$

$$\frac{7}{2}+m,\ \frac{1}{2},\ \frac{5}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ -\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Bigg]$$

$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\Bigg) +$$

$$\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \Bigg((c-d)\ \Bigg(-\frac{1}{10\ (c+d)}9\ (c-d)\ \text{AppellF1}\left[\frac{5}{2},\ \frac{5}{2}+m,\right.$$

$$\left.\frac{5}{2},\ \frac{7}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ -\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]$$

$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right] -$$

$$\frac{3}{5}\left(\frac{5}{2}+m\right)\text{AppellF1}\left[\frac{5}{2},\ \frac{7}{2}+m,\ \frac{3}{2},\ \frac{7}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$

$$\left.-\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2$$

$$\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\Bigg) + (c+d)\ (5+2m)\ \Bigg(-\frac{1}{10\ (c+d)}$$

$$3\ (c-d)\ \text{AppellF1}\left[\frac{5}{2},\ \frac{7}{2}+m,\ \frac{3}{2},\ \frac{7}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$

$$\left.-\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2$$

$$\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right] - \frac{3}{5}\left(\frac{7}{2}+m\right)\text{AppellF1}\left[\frac{5}{2},\ \frac{9}{2}+m,\ \frac{1}{2},\right.$$

$$\left.\frac{7}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ -\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]$$

$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\Bigg)\Bigg)\Bigg)\Bigg)\Bigg)\Bigg/$$

$$\Bigg(\left(c+d+c\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 - d\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)$$

$$\Bigg(-3\ (c+d)\ \text{AppellF1}\left[\frac{1}{2},\ \frac{5}{2}+m,\ \frac{1}{2},\ \frac{3}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$

$$\left.-\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right] + \Bigg((c-d)\ \text{AppellF1}\left[\frac{3}{2},\ \frac{5}{2}+m,\ \frac{3}{2},\right.$$

$$\left.\frac{5}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ -\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right] +$$

$$(c+d)\ (5+2m)\ \text{AppellF1}\Big[\frac{3}{2},\ \frac{7}{2}+m,\ \frac{1}{2},\ \frac{5}{2},\ -\text{Tan}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2,\ -\frac{(c-d)\ \text{Tan}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2}{c+d}\Big]\ \text{Tan}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2\Bigg)\Bigg)\Bigg)-$$

$$\Bigg(5\ (A-B+C)\ (c-d)\ \text{AppellF1}\Big[\frac{3}{2},\ \frac{5}{2}+m,\ -\frac{1}{2},\ \frac{5}{2},\ -\text{Tan}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2,\ -\frac{(c-d)\ \text{Tan}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2}{c+d}\Big]\ \text{Tan}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2$$

$$\Bigg(\Bigg((c-d)\ \text{AppellF1}\Big[\frac{5}{2},\ \frac{5}{2}+m,\ \frac{1}{2},\ \frac{7}{2},\ -\text{Tan}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2,\ -\frac{(c-d)\ \text{Tan}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2}{c+d}\Big]-(c+d)\ (5+2m)\ \text{AppellF1}\Big[\frac{5}{2},\ \frac{7}{2}+m,\ -\frac{1}{2},\ \frac{7}{2},\ -\text{Tan}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2,\ -\frac{(c-d)\ \text{Tan}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2}{c+d}\Big]\Bigg)$$

$$\text{Sec}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2\ \text{Tan}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]+5\ (c+d)$$

$$\Bigg(\frac{1}{10\ (c+d)}3\ (c-d)\ \text{AppellF1}\Big[\frac{5}{2},\ \frac{5}{2}+m,\ \frac{1}{2},\ \frac{7}{2},\ -\text{Tan}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2,\ -\frac{(c-d)\ \text{Tan}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2}{c+d}\Big]\ \text{Sec}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2\ \text{Tan}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]-\frac{3}{5}\Big(\frac{5}{2}+m\Big)\ \text{AppellF1}\Big[\frac{5}{2},\ \frac{7}{2}+m,\ -\frac{1}{2},\ \frac{7}{2},\ -\text{Tan}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2,\ -\frac{(c-d)\ \text{Tan}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2}{c+d}\Big]\ \text{Sec}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2\ \text{Tan}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]\Bigg)+$$

$$\text{Tan}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2\Bigg((c-d)\Bigg(-\frac{1}{14\ (c+d)}5\ (c-d)\ \text{AppellF1}\Big[\frac{7}{2},\ \frac{5}{2}+m,\ \frac{3}{2},\ \frac{9}{2},\ -\text{Tan}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2,\ -\frac{(c-d)\ \text{Tan}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2}{c+d}\Big]\ \text{Sec}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2\ \text{Tan}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]-\frac{5}{7}\Big(\frac{5}{2}+m\Big)\ \text{AppellF1}\Big[\frac{7}{2},\ \frac{7}{2}+m,\ \frac{1}{2},\ \frac{9}{2},\ -\text{Tan}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Bigg]\,\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2$$

$$\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\Bigg)-(c+d)\,(5+2\,m)\left(\frac{1}{14\,(c+d)}\right.$$

$$5\,(c-d)\,\text{AppellF1}\left[\frac{7}{2},\,\frac{7}{2}+m,\,\frac{1}{2},\,\frac{9}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Bigg]\,\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2$$

$$\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]-\frac{5}{7}\left(\frac{7}{2}+m\right)\text{AppellF1}\left[\frac{7}{2},\,\frac{9}{2}+m,\,-\frac{1}{2},\right.$$

$$\left.\frac{9}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]$$

$$\left.\left.\left.\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\right)\right)\right)\Bigg/$$

$$\left(5\,(c+d)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{5}{2}+m,\,-\frac{1}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Bigg]+\Bigg((c-d)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{5}{2}+m,\,\frac{1}{2},\right.$$

$$\frac{7}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Bigg]-$$

$$(c+d)\,(5+2\,m)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{7}{2}+m,\,-\frac{1}{2},\,\frac{7}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$\left.\left.\left.\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Bigg]\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\right)\right)\right)$$

Problem 30: Result more than twice size of optimal antiderivative.

$$\int\frac{(a+a\,\text{Sin}[e+f\,x])^m\,(A+B\,\text{Sin}[e+f\,x]+C\,\text{Sin}[e+f\,x]^2)}{(c+d\,\text{Sin}[e+f\,x])^{3/2}}\,dx$$

Optimal (type 6, 433 leaves, 10 steps):

$$\frac{2\left(c^2 C - B c d + A d^2\right) \text{Cos}[e+f x] \left(a + a \text{Sin}[e+f x]\right)^m}{d\left(c^2 - d^2\right) f \sqrt{c + d \text{Sin}[e+f x]}} -$$

$$\left(\sqrt{2}\left(d^2\left(A + B - C + 4 A m\right) - c d\left(A + B + C + 4 B m\right) + 2 c^2\left(C + 2 C m\right)\right)\right.$$

$$\text{AppellF1}\left[\frac{1}{2}+m, \frac{1}{2}, \frac{1}{2}, \frac{3}{2}+m, \frac{1}{2}\left(1+\text{Sin}[e+f x]\right), -\frac{d\left(1+\text{Sin}[e+f x]\right)}{c-d}\right]$$

$$\left.\text{Cos}[e+f x]\left(a+a\text{Sin}[e+f x]\right)^m \sqrt{\frac{c+d\text{Sin}[e+f x]}{c-d}}\right) /$$

$$\left(d\left(c^2-d^2\right) f\left(1+2m\right)\sqrt{1-\text{Sin}[e+f x]}\sqrt{c+d\text{Sin}[e+f x]}\right) -$$

$$\left(\sqrt{2}\left(d\left(B c - A d\right)\left(1+2m\right) + C\left(d^2 - 2c^2\left(1+m\right)\right)\right)\right.$$

$$\text{AppellF1}\left[\frac{3}{2}+m, \frac{1}{2}, \frac{1}{2}, \frac{5}{2}+m, \frac{1}{2}\left(1+\text{Sin}[e+f x]\right), -\frac{d\left(1+\text{Sin}[e+f x]\right)}{c-d}\right]$$

$$\left.\text{Cos}[e+f x]\left(a+a\text{Sin}[e+f x]\right)^{1+m} \sqrt{\frac{c+d\text{Sin}[e+f x]}{c-d}}\right) /$$

$$\left(a d\left(c^2-d^2\right) f\left(3+2m\right)\sqrt{1-\text{Sin}[e+f x]}\sqrt{c+d\text{Sin}[e+f x]}\right)$$

Result (type 6, 31 436 leaves) : Display of huge result suppressed !

Problem 31: Result more than twice size of optimal antiderivative.

$$\int \frac{\left(a + a \text{Sin}[e+f x]\right)^m \left(A + B \text{Sin}[e+f x] + C \text{Sin}[e+f x]^2\right)}{\left(c + d \text{Sin}[e+f x]\right)^{5/2}} \, dx$$

Optimal (type 6, 451 leaves, 10 steps) :

$$\frac{2\left(c^2 C - B c d + A d^2\right) \text{Cos}[e+f x] \left(a + a \text{Sin}[e+f x]\right)^m}{3 d \left(c^2 - d^2\right) f \left(c + d \text{Sin}[e+f x]\right)^{3/2}} +$$

$$\left(\sqrt{2}\left(d^2\left(A - 3B + 3C - 4Am\right) + c d\left(3A - B + 3C + 4Bm\right) - 2c^2\left(C + 2Cm\right)\right)\right.$$

$$\text{AppellF1}\left[\frac{1}{2}+m, \frac{1}{2}, \frac{3}{2}, \frac{3}{2}+m, \frac{1}{2}\left(1+\text{Sin}[e+f x]\right), -\frac{d\left(1+\text{Sin}[e+f x]\right)}{c-d}\right]$$

$$\left.\text{Cos}[e+f x]\left(a+a\text{Sin}[e+f x]\right)^m \sqrt{\frac{c+d\text{Sin}[e+f x]}{c-d}}\right) /$$

$$\left(3(c-d)^2 d (c+d) f (1+2m) \sqrt{1-\text{Sin}[e+f x]}\sqrt{c+d\text{Sin}[e+f x]}\right) +$$

$$\left(\sqrt{2}\left(B c d\left(1-2m\right) + 2c^2 C\left(1+m\right) - d^2\left(A + 3C - 2Am\right)\right)\right.$$

$$\text{AppellF1}\left[\frac{3}{2}+m, \frac{1}{2}, \frac{3}{2}, \frac{5}{2}+m, \frac{1}{2}\left(1+\text{Sin}[e+f x]\right), -\frac{d\left(1+\text{Sin}[e+f x]\right)}{c-d}\right]$$

$$\left.\text{Cos}[e+f x]\left(a+a\text{Sin}[e+f x]\right)^{1+m} \sqrt{\frac{c+d\text{Sin}[e+f x]}{c-d}}\right) /$$

$$\left(3a(c-d)^2 d (c+d) f (3+2m) \sqrt{1-\text{Sin}[e+f x]}\sqrt{c+d\text{Sin}[e+f x]}\right)$$

Result (type 6, 12 922 leaves):

$$-\left(\left(2(c+d)\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^{-1-2m}\text{Sin}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\right.\right.$$

$$\left(a+a\text{Sin}[e+f x]\right)^m\left(-\frac{2A\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^{2m}}{\left(c+d\text{Sin}[e+f x]\right)^{5/2}} - \frac{C\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^{2m}}{\left(c+d\text{Sin}[e+f x]\right)^{5/2}} -\right.$$

$$\left.\left.\frac{C\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^{2m}\text{Cos}\left[2\left(-e+\frac{\pi}{2}-f x\right)\right]}{\left(c+d\text{Sin}[e+f x]\right)^{5/2}} - \frac{2B\text{Cos}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^{2m}\text{Sin}[e+f x]}{\left(c+d\text{Sin}[e+f x]\right)^{5/2}}\right)\right.$$

$$\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^{-m}\sqrt{\frac{c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 - d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}}$$

$$\left(\left(45(A+B+C)\,\text{AppellF1}\left[\frac{1}{2}, \frac{1}{2}+m, \frac{5}{2}, \frac{3}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.\right.\right.$$

$$\left.\left.\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\right) /\left(3(c+d)\,\text{AppellF1}\left[\frac{1}{2}, \frac{1}{2}+m, \frac{5}{2}, \frac{3}{2},\right.\right.$$

$$-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big] - \Bigg(5\,(c-d)\,\text{AppellF1}\Big[\frac{3}{2},$$

$$\frac{1}{2}+m, \frac{7}{2}, \frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big] +$$

$$(c+d)\,(1+2m)\,\text{AppellF1}\Big[\frac{3}{2}, \frac{3}{2}+m, \frac{5}{2}, \frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\Bigg)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg) +$$

$$\Bigg(50\,(-A+C)\,\text{AppellF1}\Big[\frac{3}{2}, \frac{1}{2}+m, \frac{5}{2}, \frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg)\Big/$$

$$\Bigg(-5\,(c+d)\,\text{AppellF1}\Big[\frac{3}{2}, \frac{1}{2}+m, \frac{5}{2}, \frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big] + \Bigg(5\,(c-d)\,\text{AppellF1}\Big[\frac{5}{2}, \frac{1}{2}+$$

$$m, \frac{7}{2}, \frac{7}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big] +$$

$$(c+d)\,(1+2m)\,\text{AppellF1}\Big[\frac{5}{2}, \frac{3}{2}+m, \frac{5}{2}, \frac{7}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\Bigg)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg) -$$

$$\Bigg(21\,(A-B+C)\,\text{AppellF1}\Big[\frac{5}{2}, \frac{1}{2}+m, \frac{5}{2}, \frac{7}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^4\Bigg)\Big/$$

$$\Bigg(-7\,(c+d)\,\text{AppellF1}\Big[\frac{5}{2}, \frac{1}{2}+m, \frac{5}{2}, \frac{7}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big] + \Bigg(5\,(c-d)\,\text{AppellF1}\Big[\frac{7}{2}, \frac{1}{2}+$$

$$m, \frac{7}{2}, \frac{9}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big] +$$
$$(c+d)\,(1+2m)\,\text{AppellF1}\Big[\frac{7}{2}, \frac{3}{2}+m, \frac{5}{2}, \frac{9}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$
$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big)\Big)\Big)\Big/$$

$$\Big(15 f \left(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^3$$
$$\Big(\Big(1\Big/\left(5\left(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^4\right)\Big)$$
$$4\,(c+d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\Big(c\,\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]-$$
$$d\,\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\Big)\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^{-m}$$
$$\sqrt{\Big(\Big(\left(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\Big/$$
$$\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\Big)\Big(\Big(45\,(A+B+C)\,\text{AppellF1}\Big[\frac{1}{2}, \frac{1}{2}+m, \frac{5}{2},$$
$$\frac{3}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\Big)\Big/$$
$$\Big(3\,(c+d)\,\text{AppellF1}\Big[\frac{1}{2}, \frac{1}{2}+m, \frac{5}{2}, \frac{3}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$
$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]-\Big(5\,(c-d)\,\text{AppellF1}\Big[\frac{3}{2}, \frac{1}{2}+m, \frac{7}{2},$$
$$\frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]+$$
$$(c+d)\,(1+2m)\,\text{AppellF1}\Big[\frac{3}{2}, \frac{3}{2}+m, \frac{5}{2}, \frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$
$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big)+$$
$$\Big(50\,(-A+C)\,\text{AppellF1}\Big[\frac{3}{2}, \frac{1}{2}+m, \frac{5}{2}, \frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg)\Big/$$

$$\Bigg(-5\,(c+d)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{1}{2}+m,\,\frac{5}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+\Bigg(5\,(c-d)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{1}{2}+m,\,\frac{7}{2},\right.$$

$$\left.\frac{7}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+$$

$$(c+d)\,(1+2m)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{3}{2}+m,\,\frac{5}{2},\,\frac{7}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\Bigg)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg)-$$

$$\Bigg(21\,(A-B+C)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{1}{2}+m,\,\frac{5}{2},\,\frac{7}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^4\Bigg)\Big/$$

$$\Bigg(-7\,(c+d)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{1}{2}+m,\,\frac{5}{2},\,\frac{7}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+\Bigg(5\,(c-d)\,\text{AppellF1}\left[\frac{7}{2},\,\frac{1}{2}+m,\,\frac{7}{2},\right.$$

$$\left.\frac{9}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+$$

$$(c+d)\,(1+2m)\,\text{AppellF1}\left[\frac{7}{2},\,\frac{3}{2}+m,\,\frac{5}{2},\,\frac{9}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg)\Bigg)+$$

$$\Bigg(1\Big/\left(15\left(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^3\right)\Bigg)$$

$$4\,(c+d)\,m\,\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2$$

$$\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)^{-1-m}$$

$$\sqrt{\left(\left(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\Big/\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\right)}\left(\left(45\,(A+B+C)\,\text{AppellF1}\left[\frac{1}{2},\frac{1}{2}+m,\frac{5}{2},\frac{3}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\Big/\left(3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\frac{1}{2}+m,\frac{5}{2},\frac{3}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]-\left(5\,(c-d)\,\text{AppellF1}\left[\frac{3}{2},\frac{1}{2}+m,\frac{7}{2},\frac{5}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+(c+d)\,(1+2\,m)\,\text{AppellF1}\left[\frac{3}{2},\frac{3}{2}+m,\frac{5}{2},\frac{5}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)+\left(50\,(-A+C)\,\text{AppellF1}\left[\frac{3}{2},\frac{1}{2}+m,\frac{5}{2},\frac{5}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\Big/\left(-5\,(c+d)\,\text{AppellF1}\left[\frac{3}{2},\frac{1}{2}+m,\frac{5}{2},\frac{5}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\left(5\,(c-d)\,\text{AppellF1}\left[\frac{5}{2},\frac{1}{2}+m,\frac{7}{2},\frac{7}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+(c+d)\,(1+2\,m)\,\text{AppellF1}\left[\frac{5}{2},\frac{3}{2}+m,\frac{5}{2},\frac{7}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)-$$

$$\left(21\,(A-B+C)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{1}{2}+m,\,\frac{5}{2},\,\frac{7}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\left.\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^4\right)\Big/$$

$$\left(-7\,(c+d)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{1}{2}+m,\,\frac{5}{2},\,\frac{7}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\left.\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\left(5\,(c-d)\,\text{AppellF1}\left[\frac{7}{2},\,\frac{1}{2}+m,\,\frac{7}{2},\right.\right.\right.$$

$$\left.\left.\frac{9}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\right.$$

$$(c+d)\,(1+2\,m)\,\text{AppellF1}\left[\frac{7}{2},\,\frac{3}{2}+m,\,\frac{5}{2},\,\frac{9}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$\left.\left.\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\right)-$$

$$\left(1\Big/\left(15\left(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^3\right)\right)$$

$$2\,(c+d)\,\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2$$

$$\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{-m}$$

$$\sqrt{\left(\left(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\Big/\right.}$$

$$\left.\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\right)$$

$$\left(\left(45\,(A+B+C)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{1}{2}+m,\,\frac{5}{2},\,\frac{3}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.\right.$$

$$\left.\left.\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\Big/$$

$$\left(3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{1}{2}+m,\,\frac{5}{2},\,\frac{3}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\left.\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]-\left(5\,(c-d)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{1}{2}+m,\,\frac{7}{2},\right.\right.\right.$$

$$\left.\left.\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\right.$$

$$(c+d)\ (1+2m)\ \text{AppellF1}\left[\frac{3}{2},\ \frac{3}{2}+m,\ \frac{5}{2},\ \frac{5}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2,\right.$$
$$\left.-\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2}{c+d}\right]\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2\Bigg) +$$

$$\Bigg(50\ (-A+C)\ \text{AppellF1}\left[\frac{3}{2},\ \frac{1}{2}+m,\ \frac{5}{2},\ \frac{5}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2,\right.$$
$$\left.-\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2}{c+d}\right]\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2\Bigg)\Big/$$
$$\Bigg(-5\ (c+d)\ \text{AppellF1}\left[\frac{3}{2},\ \frac{1}{2}+m,\ \frac{5}{2},\ \frac{5}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2,\right.$$
$$\left.-\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2}{c+d}\right] + \Bigg(5\ (c-d)\ \text{AppellF1}\left[\frac{5}{2},\ \frac{1}{2}+m,\ \frac{7}{2},\right.$$
$$\left.\frac{7}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2,\ -\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2}{c+d}\right] +$$
$$(c+d)\ (1+2m)\ \text{AppellF1}\left[\frac{5}{2},\ \frac{3}{2}+m,\ \frac{5}{2},\ \frac{7}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2,\right.$$
$$\left.-\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2}{c+d}\right]\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2\Bigg) -$$

$$\Bigg(21\ (A-B+C)\ \text{AppellF1}\left[\frac{5}{2},\ \frac{1}{2}+m,\ \frac{5}{2},\ \frac{7}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2,\right.$$
$$\left.-\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2}{c+d}\right]\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^4\Bigg)\Big/$$
$$\Bigg(-7\ (c+d)\ \text{AppellF1}\left[\frac{5}{2},\ \frac{1}{2}+m,\ \frac{5}{2},\ \frac{7}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2,\right.$$
$$\left.-\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2}{c+d}\right] + \Bigg(5\ (c-d)\ \text{AppellF1}\left[\frac{7}{2},\ \frac{1}{2}+m,\ \frac{7}{2},\right.$$
$$\left.\frac{9}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2,\ -\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2}{c+d}\right] +$$
$$(c+d)\ (1+2m)\ \text{AppellF1}\left[\frac{7}{2},\ \frac{3}{2}+m,\ \frac{5}{2},\ \frac{9}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-fx\right)\right]^2,\right.$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Bigg]\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)\Bigg)-$$

$$\Bigg(2\,(c+d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\,\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^{-m}$$

$$\Bigg(\Bigg(\Bigg(c\,\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]-d\,\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2$$

$$\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\Bigg)\Big/\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)-$$

$$\Bigg(\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\,\left(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2-$$

$$d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)\Bigg)\Big/\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)^2\Bigg)$$

$$\Bigg(\Bigg(\Bigg(45\,(A+B+C)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{1}{2}+m,\,\frac{5}{2},\,\frac{3}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Bigg]\Bigg)\Big/$$

$$\Bigg(3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{1}{2}+m,\,\frac{5}{2},\,\frac{3}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Bigg]-\Bigg(5\,(c-d)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{1}{2}+m,\,\frac{7}{2},\right.$$

$$\left.\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$

$$(c+d)\,(1+2\,m)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{3}{2}+m,\,\frac{5}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Bigg]\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)+$$

$$\Bigg(50\,(-A+C)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{1}{2}+m,\,\frac{5}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Bigg]\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)\Big/$$

$$\Bigg(-5\,(c+d)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{1}{2}+m,\,\frac{5}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big] + \Bigg(5\,(c-d)\,\text{AppellF1}\Big[\frac{5}{2},\,\frac{1}{2}+m,\,\frac{7}{2},$$

$$\frac{7}{2},\,-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big] +$$

$$(c+d)\,(1+2m)\,\text{AppellF1}\Big[\frac{5}{2},\,\frac{3}{2}+m,\,\frac{5}{2},\,\frac{7}{2},\,-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\Bigg)\,\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2 -$$

$$\Bigg(21\,(A-B+C)\,\text{AppellF1}\Big[\frac{5}{2},\,\frac{1}{2}+m,\,\frac{5}{2},\,\frac{7}{2},\,-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\,\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^4\Bigg)\Big/$$

$$\Bigg(-7\,(c+d)\,\text{AppellF1}\Big[\frac{5}{2},\,\frac{1}{2}+m,\,\frac{5}{2},\,\frac{7}{2},\,-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big] + \Bigg(5\,(c-d)\,\text{AppellF1}\Big[\frac{7}{2},\,\frac{1}{2}+m,\,\frac{7}{2},$$

$$\frac{9}{2},\,-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big] +$$

$$(c+d)\,(1+2m)\,\text{AppellF1}\Big[\frac{7}{2},\,\frac{3}{2}+m,\,\frac{5}{2},\,\frac{9}{2},\,-\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\Bigg)\,\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2\Bigg)\Bigg)\Bigg)\Big/$$

$$\Bigg(15\left(c+d+c\,\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2-d\,\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2\right)^3$$

$$\sqrt{\left(\left(c+d+c\,\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2-d\,\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2\right)\Big/\right.}$$

$$\left.\left(1+\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2\right)\right)\Bigg) -$$

$$\Bigg(1\Big/\left(15\left(c+d+c\,\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2-d\,\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2\right)^3\right)\Bigg)$$

$$4\,(c+d)\,\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]$$

$$\left(1+\text{Tan}\Big[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\Big]^2\right)^{-m}$$

$$\sqrt{\left(\left(c+d+c\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2-d\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\Big/\left(1+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right)\right)}$$

$$\left(\left(45\,(A+B+C)\left(-\frac{1}{6\,(c+d)}5\,(c-d)\,\text{AppellF1}\left[\frac{3}{2},\frac{1}{2}+m,\frac{7}{2},\frac{5}{2},\right.\right.\right.$$

$$\left.-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]$$

$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]-\frac{1}{3}\left(\frac{1}{2}+m\right)\text{AppellF1}\left[\frac{3}{2},\right.$$

$$\left.\frac{3}{2}+m,\frac{5}{2},\frac{5}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]$$

$$\left.\left.\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\right)\right)\Big/$$

$$\left(3\,(c+d)\,\text{AppellF1}\left[\frac{1}{2},\frac{1}{2}+m,\frac{5}{2},\frac{3}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]-\left(5\,(c-d)\,\text{AppellF1}\left[\frac{3}{2},\frac{1}{2}+m,\frac{7}{2},\right.\right.$$

$$\left.\frac{5}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$

$$(c+d)\,(1+2\,m)\,\text{AppellF1}\left[\frac{3}{2},\frac{3}{2}+m,\frac{5}{2},\frac{5}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$\left.\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2+$$

$$\left(50\,(-A+C)\,\text{AppellF1}\left[\frac{3}{2},\frac{1}{2}+m,\frac{5}{2},\frac{5}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\left.\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\right)\Big/$$

$$\left(-5\,(c+d)\,\text{AppellF1}\left[\frac{3}{2},\frac{1}{2}+m,\frac{5}{2},\frac{5}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\left(5\,(c-d)\,\text{AppellF1}\left[\frac{5}{2},\frac{1}{2}+m,\frac{7}{2},\right.\right.$$

$$\frac{7}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big] +$$
$$(c+d)\,(1+2m)\,\text{AppellF1}\Big[\frac{5}{2}, \frac{3}{2}+m, \frac{5}{2}, \frac{7}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$
$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\Big)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big) +$$
$$\Big(50\,(-A+C)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big(-\frac{1}{2\,(c+d)}3\,(c-d)\,\text{AppellF1}\Big[\frac{5}{2}, \frac{1}{2}+m,$$
$$\frac{7}{2}, \frac{7}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]$$
$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right] - \frac{3}{5}\left(\frac{1}{2}+m\right)\text{AppellF1}\Big[\frac{5}{2},$$
$$\frac{3}{2}+m, \frac{5}{2}, \frac{7}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]$$
$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\Big)\Big)\Big/$$
$$\Big(-5\,(c+d)\,\text{AppellF1}\Big[\frac{3}{2}, \frac{1}{2}+m, \frac{5}{2}, \frac{5}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$
$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big] + \Big(5\,(c-d)\,\text{AppellF1}\Big[\frac{5}{2}, \frac{1}{2}+m, \frac{7}{2},$$
$$\frac{7}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big] +$$
$$(c+d)\,(1+2m)\,\text{AppellF1}\Big[\frac{5}{2}, \frac{3}{2}+m, \frac{5}{2}, \frac{7}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$
$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]\Big)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Big) -$$
$$\Big(42\,(A-B+C)\,\text{AppellF1}\Big[\frac{5}{2}, \frac{1}{2}+m, \frac{5}{2}, \frac{7}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$
$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Big]$$
$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^3\Big)\Big/$$

$$\left(-7\,(c+d)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{1}{2}+m,\,\frac{5}{2},\,\frac{7}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$
$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\left(5\,(c-d)\,\text{AppellF1}\left[\frac{7}{2},\,\frac{1}{2}+m,\,\frac{7}{2},\right.\right.$$
$$\left.\frac{9}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$
$$(c+d)\,(1+2\,m)\,\text{AppellF1}\left[\frac{7}{2},\,\frac{3}{2}+m,\,\frac{5}{2},\,\frac{9}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$
$$\left.\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)-$$

$$\left(21\,(A-B+C)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^4\left(-\frac{1}{14\,(c+d)}25\,(c-d)\,\text{AppellF1}\left[\frac{7}{2},\right.\right.\right.$$
$$\left.\frac{1}{2}+m,\,\frac{7}{2},\,\frac{9}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]$$
$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]-\frac{5}{7}\left(\frac{1}{2}+m\right)\text{AppellF1}\left[\frac{7}{2},\right.$$
$$\left.\frac{3}{2}+m,\,\frac{5}{2},\,\frac{9}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]$$
$$\left.\left.\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\right)\right)\Bigg/$$

$$\left(-7\,(c+d)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{1}{2}+m,\,\frac{5}{2},\,\frac{7}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$
$$\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+\left(5\,(c-d)\,\text{AppellF1}\left[\frac{7}{2},\,\frac{1}{2}+m,\,\frac{7}{2},\right.\right.$$
$$\left.\frac{9}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$
$$(c+d)\,(1+2\,m)\,\text{AppellF1}\left[\frac{7}{2},\,\frac{3}{2}+m,\,\frac{5}{2},\,\frac{9}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$
$$\left.\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\Bigg)-$$

$$\left(45\,(A+B+C)\,\text{AppellF1}\left[\frac{1}{2},\,\frac{1}{2}+m,\,\frac{5}{2},\,\frac{3}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Bigg]\left(-\left(5\,(c-d)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{1}{2}+m,\,\frac{7}{2},\right.\right.$$

$$\left.\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]+$$

$$(c+d)\,(1+2\,m)\,\text{AppellF1}\left[\frac{3}{2},\,\frac{3}{2}+m,\,\frac{5}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.$$

$$\left.\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\right)\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2$$

$$\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]+3\,(c+d)\left(-\frac{1}{6\,(c+d)}5\,(c-d)\,\text{AppellF1}\left[\frac{3}{2},\right.\right.$$

$$\frac{1}{2}+m,\,\frac{7}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Bigg]$$

$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]-\frac{1}{3}\left(\frac{1}{2}+m\right)\text{AppellF1}\left[\frac{3}{2},\right.$$

$$\left.\frac{3}{2}+m,\,\frac{5}{2},\,\frac{5}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]$$

$$\left.\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\right)-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2$$

$$\left(5\,(c-d)\left(-\left(\left(\left(21\,(c-d)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{1}{2}+m,\,\frac{9}{2},\,\frac{7}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.\right.\right.$$

$$\left.\left.\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{2}\right.\right.\right.$$

$$\left.\left.\left.\left(-e+\frac{\pi}{2}-f\,x\right)\right]\right)\Big/\left(10\,(c+d)\right)\right)-\frac{3}{5}\left(\frac{1}{2}+m\right)\text{AppellF1}\left[\frac{5}{2},\,\frac{3}{2}+m,\right.$$

$$\frac{7}{2},\,\frac{7}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\Bigg]$$

$$\left.\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]\right)+(c+d)\,(1+2\,m)$$

$$\left(-\frac{1}{2\,(c+d)}3\,(c-d)\,\text{AppellF1}\left[\frac{5}{2},\,\frac{3}{2}+m,\,\frac{7}{2},\,\frac{7}{2},\,-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2,\right.\right.$$

$$\left.\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2}{c+d}\right]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f\,x\right)\right]^2\right.$$

$$\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]-\frac{3}{5}\left(\frac{3}{2}+m\right)\text{AppellF1}\left[\frac{5}{2},\ \frac{5}{2}+m,\ \frac{5}{2},\ \frac{7}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ -\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]$$
$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\Bigg)\Bigg)\Bigg)\Bigg)\Bigg/$$
$$\Bigg(3\ (c+d)\ \text{AppellF1}\left[\frac{1}{2},\ \frac{1}{2}+m,\ \frac{5}{2},\ \frac{3}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ -\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]-\Bigg(5\ (c-d)\ \text{AppellF1}\left[\frac{3}{2},\ \frac{1}{2}+m,\ \frac{7}{2},\ \frac{5}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ -\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+(c+d)\ (1+2m)\ \text{AppellF1}\left[\frac{3}{2},\ \frac{3}{2}+m,\ \frac{5}{2},\ \frac{5}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ -\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\Bigg)\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\Bigg)^2-$$
$$\Bigg(50\ (-A+C)\ \text{AppellF1}\left[\frac{3}{2},\ \frac{1}{2}+m,\ \frac{5}{2},\ \frac{5}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ -\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2$$
$$\Bigg(\Bigg(5\ (c-d)\ \text{AppellF1}\left[\frac{5}{2},\ \frac{1}{2}+m,\ \frac{7}{2},\ \frac{7}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ -\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+(c+d)\ (1+2m)\ \text{AppellF1}\left[\frac{5}{2},\ \frac{3}{2}+m,\ \frac{5}{2},\ \frac{7}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ -\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\Bigg)$$
$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]-5\ (c+d)$$
$$\Bigg(-\frac{1}{2\ (c+d)}3\ (c-d)\ \text{AppellF1}\left[\frac{5}{2},\ \frac{1}{2}+m,\ \frac{7}{2},\ \frac{7}{2},\ -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\ -\frac{(c-d)\ \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2$$

$$\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]-\frac{3}{5}\left(\frac{1}{2}+m\right)\text{AppellF1}\left[\frac{5}{2},\frac{3}{2}+m,\frac{5}{2},\frac{7}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]$$

$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\Bigg)+\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2$$

$$\Bigg(5(c-d)\Bigg(-\frac{1}{2(c+d)}5(c-d)\,\text{AppellF1}\left[\frac{7}{2},\frac{1}{2}+m,\frac{9}{2},\frac{9}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]-\frac{5}{7}\left(\frac{1}{2}+m\right)\text{AppellF1}\left[\frac{7}{2},\frac{3}{2}+m,\frac{7}{2},\frac{9}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]$$

$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\Bigg)+(c+d)(1+2m)$$

$$\Bigg(-\Bigg(\Bigg(25(c-d)\,\text{AppellF1}\left[\frac{7}{2},\frac{3}{2}+m,\frac{7}{2},\frac{9}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\Bigg)\Big/(14(c+d))\Bigg)-\frac{5}{7}\left(\frac{3}{2}+m\right)\text{AppellF1}\left[\frac{7}{2},\frac{5}{2}+m,\frac{5}{2},\frac{9}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]$$

$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\Bigg)\Bigg)\Bigg)\Bigg)\Bigg)\Big/$$

$$\Bigg(-5(c+d)\,\text{AppellF1}\left[\frac{3}{2},\frac{1}{2}+m,\frac{5}{2},\frac{5}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+\Bigg(5(c-d)\,\text{AppellF1}\left[\frac{5}{2},\frac{1}{2}+m,\frac{7}{2},\frac{7}{2},-\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\right]+$$

$$(c+d)\ (1+2m)\ \text{AppellF1}\Big[\frac{5}{2},\ \frac{3}{2}+m,\ \frac{5}{2},\ \frac{7}{2},\ -\text{Tan}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2,\ -\frac{(c-d)\ \text{Tan}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2}{c+d}\Big]\Big)\ \text{Tan}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2\Big)^2+$$

$$\Bigg(21\ (A-B+C)\ \text{AppellF1}\Big[\frac{5}{2},\ \frac{1}{2}+m,\ \frac{5}{2},\ \frac{7}{2},\ -\text{Tan}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2,\ -\frac{(c-d)\ \text{Tan}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2}{c+d}\Big]\ \text{Tan}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^4$$

$$\Bigg(\Bigg(5\ (c-d)\ \text{AppellF1}\Big[\frac{7}{2},\ \frac{1}{2}+m,\ \frac{7}{2},\ \frac{9}{2},\ -\text{Tan}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2,\ -\frac{(c-d)\ \text{Tan}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2}{c+d}\Big]+(c+d)\ (1+2m)\ \text{AppellF1}\Big[\frac{7}{2},\ \frac{3}{2}+m,\ \frac{5}{2},\ \frac{9}{2},\ -\text{Tan}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2,\ -\frac{(c-d)\ \text{Tan}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2}{c+d}\Big]\Bigg)$$

$$\text{Sec}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2\ \text{Tan}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]-7\ (c+d)$$

$$\Bigg(-\frac{1}{14\ (c+d)}25\ (c-d)\ \text{AppellF1}\Big[\frac{7}{2},\ \frac{1}{2}+m,\ \frac{7}{2},\ \frac{9}{2},\ -\text{Tan}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2,\ -\frac{(c-d)\ \text{Tan}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2}{c+d}\Big]\ \text{Sec}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2$$

$$\text{Tan}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]-\frac{5}{7}\Big(\frac{1}{2}+m\Big)\ \text{AppellF1}\Big[\frac{7}{2},\ \frac{3}{2}+m,\ \frac{5}{2},\ \frac{9}{2},\ -\text{Tan}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2,\ -\frac{(c-d)\ \text{Tan}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2}{c+d}\Big]$$

$$\text{Sec}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2\ \text{Tan}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]\Bigg)+\text{Tan}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2$$

$$\Bigg(5\ (c-d)\ \Bigg(-\Bigg(\Bigg(49\ (c-d)\ \text{AppellF1}\Big[\frac{9}{2},\ \frac{1}{2}+m,\ \frac{9}{2},\ \frac{11}{2},\ -\text{Tan}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2,\ -\frac{(c-d)\ \text{Tan}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2}{c+d}\Big]\ \text{Sec}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]^2\ \text{Tan}\Big[\frac{1}{2}\Big(-e+\frac{\pi}{2}-fx\Big)\Big]\Bigg)\Big/\ (18\ (c+d))\Bigg)-\frac{7}{9}\Big(\frac{1}{2}+m\Big)\ \text{AppellF1}\Big[\frac{9}{2},\ \frac{3}{2}+m,$$

$$\frac{7}{2}, \frac{11}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Bigg]$$

$$\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\Bigg) + (c+d)\,(1+2m)$$

$$\Bigg(-\Bigg(\Bigg(35\,(c-d)\,\text{AppellF1}\left[\frac{9}{2}, \frac{3}{2}+m, \frac{7}{2}, \frac{11}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Bigg] \text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \text{Tan}\left[\frac{1}{2}$$

$$\left(-e+\frac{\pi}{2}-f x\right)\right]\Bigg) \Big/ (18\,(c+d))\Bigg) - \frac{7}{9}\left(\frac{3}{2}+m\right) \text{AppellF1}\left[\frac{9}{2}, \frac{5}{2}+m,\right.$$

$$\frac{5}{2}, \frac{11}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Bigg]$$

$$\left.\text{Sec}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2 \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]\Bigg)\Bigg)\Bigg)\Bigg)\Bigg) \Big/\right.$$

$$\Bigg(-7\,(c+d)\,\text{AppellF1}\left[\frac{5}{2}, \frac{1}{2}+m, \frac{5}{2}, \frac{7}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$

$$-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Bigg] + \Bigg(5\,(c-d)\,\text{AppellF1}\left[\frac{7}{2}, \frac{1}{2}+m, \frac{7}{2},\right.$$

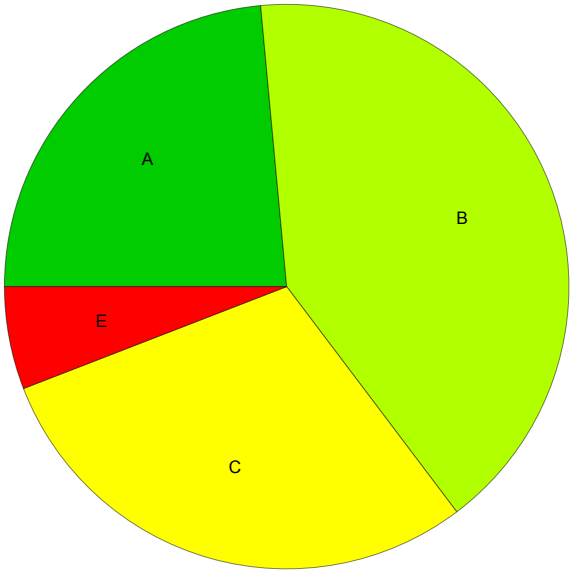
$$\frac{9}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2, -\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Bigg] +$$

$$(c+d)\,(1+2m)\,\text{AppellF1}\left[\frac{7}{2}, \frac{3}{2}+m, \frac{5}{2}, \frac{9}{2}, -\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2,\right.$$

$$\left.\left.\left.\left.-\frac{(c-d)\,\text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2}{c+d}\Bigg] \text{Tan}\left[\frac{1}{2}\left(-e+\frac{\pi}{2}-f x\right)\right]^2\right)\right)\right)\right)\Bigg)$$

Summary of Integration Test Results

34 integration problems



A - 8 optimal antiderivatives

B - 14 more than twice size of optimal antiderivatives

C - 10 unnecessarily complex antiderivatives

D - 0 unable to integrate problems

E - 2 integration timeouts