

Mathematica 11.3 Integration Test Results

Test results for the 7 problems in "Hebisch Problems.m"

Problem 3: Unable to integrate problem.

$$\int \frac{e^{\frac{x}{2+x^2}} (2 + 2x + 3x^2 - x^3 + 2x^4)}{2x + x^3} dx$$

Optimal (type 4, 28 leaves, ? steps):

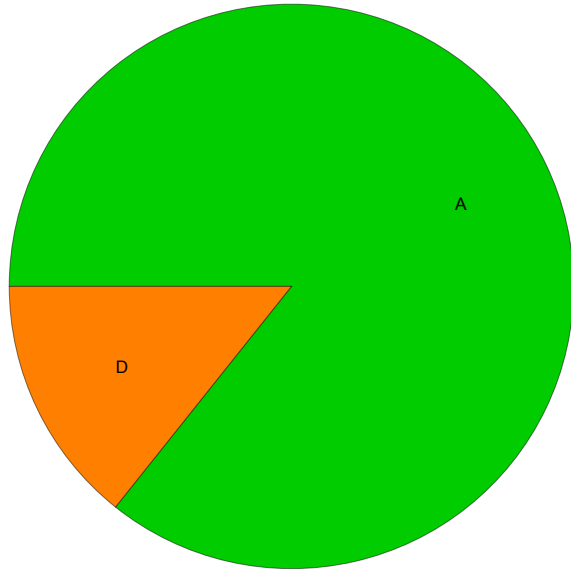
$$e^{\frac{x}{2+x^2}} (2 + x^2) + \text{ExpIntegralEi} \left[\frac{x}{2+x^2} \right]$$

Result (type 8, 43 leaves):

$$\int \frac{e^{\frac{x}{2+x^2}} (2 + 2x + 3x^2 - x^3 + 2x^4)}{2x + x^3} dx$$

Summary of Integration Test Results

7 integration problems



A - 6 optimal antiderivatives

B - 0 more than twice size of optimal antiderivatives

C - 0 unnecessarily complex antiderivatives

D - 1 unable to integrate problems

E - 0 integration timeouts