

8.5: Integration Using Tables

Often it may be difficult or impossible to solve some integrals by using any of the techniques previously presented. In these cases, a table of integrals is helpful. It is important to recognize patterns within the integral in question and be able to match those with the integrations given in the tables. There is a table of integrals in the back of your textbook.

Example 1: Determine $\int \frac{4x}{3x^2\sqrt{2x^2+5}} dx$.

Example 2: $\int \frac{\sqrt{4x^2-7}}{3x} dx$

Example 3: $\int 3x^5 \sin^{-1} x^3 dx$

Example 4: $\int x e^{5x^2} \cos 7x^2 dx$