

Notes

Examples

Example 1. Evaluate $\int_1^\infty \frac{1}{x} dx$.

Example 2. Evaluate $\int_1^\infty \frac{1}{x^2} dx$.

Example 3. Evaluate

$$\int_1^{\infty} \frac{12}{\sqrt[8]{x^3}} dx.$$

Example 4. Evaluate

$$\int_1^{\infty} 5(x-1)e^{-5x} dx$$

Example 5. Evaluate

$$\int_0^1 \ln x \, dx.$$

Example 6. Evaluate

$$\int_0^{\pi/2} \tan \theta \, d\theta.$$

Example 7. Evaluate

$$\int_{-2}^{14} \frac{dx}{\sqrt[4]{x+2}}.$$