

Evaluate each definite integral.

1.  $\int_1^2 5 dx$

2.  $\int_0^{10} 2x dx$

3.  $\int_{-2}^2 12x^2 dx$

4.  $\int_{-2}^2 12x^3 dx$

5.  $\int_{-1}^3 (-x^3 + 3x^2 + 1) dx$

6.  $\int_{-2}^1 (x^4 + x^3 - 4x^2 + 6) dx$

7.  $\int_{-3}^0 4x^{\frac{1}{3}} dx$

8.  $\int_1^4 -\frac{4}{x^3} dx$

9.  $\int_2^4 \left( -\frac{3}{x^3} + \frac{2}{x^2} - \frac{1}{x} \right) dx$

10.  $\int_1^8 -\frac{4}{5} \sqrt[3]{x} dx$

11.  $\int_0^2 2e^x dx$

12.  $\int_0^{\frac{\pi}{2}} \cos x dx$

13.  $\int_0^{2\pi} \cos x dx$

14.  $\int_{-3}^{-1} \frac{4}{x} dx$

15.  $\int_{-\frac{\pi}{4}}^{-\frac{\pi}{6}} 2 \sin x dx$

16.  $\int_{\pi}^{2\pi} \frac{\sin x}{4} dx$

17.  $\int_0^1 \left( \frac{\sqrt{x^5}}{2} - e^x \right) dx$

18.  $\int_{\frac{\pi}{3}}^{\pi} 3 (\cos x - \sin x) dx$

19.  $\int_{-\pi}^{\pi} (x^2 + \cos t - e^t) dx$

20.  $\int_{-2}^{-1} \left( x^2 + x + 1 + \frac{1}{x} + \frac{1}{x^2} \right) dx$