

More Definite Integrals

Evaluate each definite integral.

1) $\int_{-1}^0 -e^x dx$

2) $\int_{-3}^0 3e^x dx$

3) $\int_{-6}^{-3} e^{2x+6} dx$

4) $\int_{-1}^1 -3e^{2x-2} dx$

5) $\int_1^3 \frac{5}{x} dx$

6) $\int_2^3 \frac{2}{x} dx$

7) $\int_{-5}^{-3} \frac{4}{x+1} dx$

8) $\int_3^5 -\frac{2}{2x-2} dx$

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

10) $\int_{-2}^0 -\frac{4}{(x+3)^2} dx$

11) $\int_{-4}^1 2x^{\frac{1}{3}} dx$

12) $\int_1^4 5(x-3)^{\frac{1}{3}} dx$

13) $\int_2^5 -\frac{5}{x^3} dx$

14) $\int_{-1}^0 -\frac{3}{(x-2)^3} dx$

15) $\int_{-3}^{-1} \frac{2}{x} dx$

16) $\int_{-1}^2 \frac{3}{x+3} dx$

17) $\int_{-3}^1 -e^x dx$

18) $\int_0^3 -3e^{2x-6} dx$

19) $\int_{-\frac{\pi}{6}}^0 \sec x \tan x dx$

20) $\int_{\frac{\pi}{4}}^{\frac{\pi}{2}} -2\csc x \cot x dx$

21) $\int_{-\frac{\pi}{4}}^0 \sec^2 x dx$

22) $\int_{\frac{\pi}{2}}^{\frac{3\pi}{4}} -\sin x dx$

23) $\int_{-1}^2 (x^3 - x^2 - 1) dx$

24) $\int_{-1}^3 |x^2 - 2x| dx$

More Definite Integrals

Evaluate each definite integral.

1) $\int_{-1}^0 -e^x dx$

$$\frac{-e + 1}{e} \approx -0.632$$

2) $\int_{-3}^0 3e^x dx$

$$\frac{3e^3 - 3}{e^3} \approx 2.851$$

3) $\int_{-6}^{-3} e^{2x+6} dx$

$$\frac{e^6 - 1}{2e^6} \approx 0.499$$

4) $\int_{-1}^1 -3e^{2x-2} dx$

$$\frac{-3e^4 + 3}{2e^4} \approx -1.473$$

5) $\int_1^3 \frac{5}{x} dx$

$$5 \ln 3 \approx 5.493$$

6) $\int_2^3 \frac{2}{x} dx$

$$2 \ln 3 - 2 \ln 2 \approx 0.811$$

7) $\int_{-5}^{-3} \frac{4}{x+1} dx$

$$4 \ln 2 - 4 \ln 4 \approx -2.773$$

8) $\int_3^5 -\frac{2}{2x-2} dx$

$$-\ln 8 + \ln 4 \approx -0.693$$

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

$$2$$

10) $\int_{-2}^0 -\frac{4}{(x+3)^2} dx$

$$-\frac{8}{3} \approx -2.667$$

11) $\int_{-4}^1 2x^{\frac{1}{3}} dx$

$$\frac{-12\sqrt[3]{4} + 3}{2} \approx -8.024$$

12) $\int_1^4 5(x-3)^{\frac{1}{3}} dx$

$$\frac{15 - 30\sqrt[3]{2}}{4} \approx -5.699$$

$$13) \int_2^5 -\frac{5}{x^3} dx$$

$$-\frac{21}{40} = -0.525$$

$$14) \int_{-1}^0 -\frac{3}{(x-2)^3} dx$$

$$\frac{5}{24} \approx 0.208$$

$$15) \int_{-3}^{-1} \frac{2}{x} dx$$

$$-2 \ln 3 \approx -2.197$$

$$16) \int_{-1}^2 \frac{3}{x+3} dx$$

$$3 \ln 5 - 3 \ln 2 \approx 2.749$$

$$17) \int_{-3}^1 -e^x dx$$

$$\frac{-e^4 + 1}{e^3} \approx -2.668$$

$$18) \int_0^3 -3e^{2x-6} dx$$

$$\frac{-3e^6 + 3}{2e^6} \approx -1.496$$

$$19) \int_{-\frac{\pi}{6}}^0 \sec x \tan x dx$$

$$\frac{3 - 2\sqrt{3}}{3} \approx -0.155$$

$$20) \int_{\frac{\pi}{4}}^{\frac{\pi}{2}} -2\csc x \cot x dx$$

$$2 - 2\sqrt{2} \approx -0.828$$

$$21) \int_{-\frac{\pi}{4}}^0 \sec^2 x dx$$

$$1$$

$$22) \int_{\frac{\pi}{2}}^{\frac{3\pi}{4}} -\sin x dx$$

$$-\frac{\sqrt{2}}{2} \approx -0.707$$

$$23) \int_{-1}^2 (x^3 - x^2 - 1) dx$$

$$-\frac{9}{4} = -2.25$$

$$24) \int_{-1}^3 |x^2 - 2x| dx$$

$$4$$