

1. $\int_2^4 3 \, dx$

2. $\int_1^4 (2x + 3) \, dx$

3. $\int_{-1}^3 2x^2 \, dx$

4. $\int_{-2}^2 (x^2 - 1) \, dx$

5. $\int_1^8 2x^{1/3} \, dx$

6. $\int_0^1 (x^3 - 2x^2 + 1) \, dx$

7. $\int_1^4 \frac{dx}{x}$

8. $\int_0^4 x(x^2 - 1) \, dx$

9. $\int_1^3 (t^2 - t)^2 \, dt$

10. $\int_{-3}^{-1} \frac{dx}{x^2}$

11. $\int_1^4 \left(\sqrt{x} - \frac{1}{\sqrt{x}} \right) \, dx$

12. $\int_1^4 \frac{3x^3 - 2x^2 + 4}{x^2} \, dx$

13. $\int_1^4 \left(\frac{2}{x\sqrt{x}} - 5\sqrt{x} \right) \, dx$

14. $\int_1^8 \left(6\sqrt[3]{x} - \frac{8}{\sqrt[3]{x^2}} \right) \, dx$

15. $\int_{-1}^0 \sqrt[3]{x}(3 - x^2) \, dx$

16. $\int_{-8}^1 x^3(4 - \sqrt[3]{x}) \, dx$

17. $\int_1^2 \frac{6 + x^6}{x^2} \, dx$

18. $\int_{-\pi/2}^{\pi/2} (\sin x + \cos x) \, dx$

19. $\int_0^{\pi} (2 \cos x + 3 \sin x) \, dx$

20. $\int_0^{\pi/4} (1 + \sec^2 x) \, dx$

21. $\int_{-\pi/3}^0 (2x + 3 \sec x \tan x) \, dx$

22. $\int_0^{2\pi} (\sin^2 x + \cos^2 x) \, dx$

ANSWERS:

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|-------------|-------------------------|
| 1. 6 | 13. $-\frac{64}{3}$ |
| 2. 24 | 14. $\frac{87}{2}$ |
| 3. $56/3$ | 15. $-\frac{39}{20}$ |
| 4. $4/3$ | 16. $-\frac{77814}{13}$ |
| 5. $45/2$ | 17. $\frac{46}{5}$ |
| 6. $7/12$ | 18. 2 |
| 7. $\ln 4$ | 19. 6 |
| 8. 56 | 20. $\pi/4 + 1$ |
| 9. $256/15$ | 21. $\pi^2/9 - 3$ |
| 10. $2/3$ | 22. 2π |
| 11. $8/3$ | |
| 12. $39/2$ | |