

Integrals Quiz

Be sure to show all necessary work and be precise in your notation.

1. $\int \frac{-2}{z} + \frac{1}{z^{3/4}} + \frac{1}{z^{-3}} dz$

2. $\int \cos(t) dt$

3. $\int w^3 + \frac{1}{w^{1/3}} dw$

4. $\int \sin(\theta) + \sin(2\theta) + \sin(3\theta) d\theta$

5. $\int \left(t^2 \sqrt{t} + \frac{t}{\sqrt{t}} \right) dt$

$$6. \int_0^2 (2r^3 + 5r - 17) \, dr$$

$$7. \int_{-2}^2 \left(\frac{x^3}{e} - \frac{x^2}{\pi} \right) \, dx$$

$$8. \int_1^2 \frac{15}{s^4} \, ds$$

$$9. \int (1 + \frac{1}{2}x^{1/2} + x^2)(3x + x^{3/2} + x^3 + 9)^4 \, dx$$

$$10. \int \phi^2 e^\phi \, d\phi$$