

AP Calculus BC

Section 5.3 – Indefinite Integrals

Evaluate the following integrals.

1. $\int 5 - 6x \, dx$

2. $\int \frac{t^2}{2} + 4t^3 \, dt$

3. $\int 1 - x^2 - 3x^5 \, dx$

4. $\int x^{-5/4} \, dx$

5. $\int \frac{\sqrt{x}}{2} + \frac{2}{\sqrt{x}} \, dx$

6. $\int \frac{1}{7} - \frac{1}{y^{5/4}} \, dy$

7. $\int x^{-3}(x+1) \, dx$

8. $\int \frac{4 + \sqrt{t}}{t^3} \, dt$

9. $\int -5 \sin t \, dt$

10. $\int -3 \csc^2 x \, dx$

11. $\int -2 \cos t \, dt$

12. $\int \frac{2}{5} \sec \theta \tan \theta \, d\theta$

13. $\int 2x(1 - x^{-3}) \, dx$

14. $\int x^{-1/3} \, dx$

15. $\int \frac{t\sqrt{t} + \sqrt{t}}{t^2} \, dt$