

Basic Anti-Derivatives

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Name _____

Exercises (Answers are on the next page)

1. $\int 5 dx =$

2. $\int \frac{3}{4} dx =$

3. $\int -4 dx =$

4. $\int x^6 dx =$

5. $\int x^{-2} dx =$

6. $\int \sqrt{x} dx =$

7. $\int 5x^9 dx =$

8. $\int 4x^3 dx =$

Answers

1. $\int 5 dx = 5x + C$

2. $\int \frac{3}{4} dx = \frac{3}{4}x + C$

3. $\int -4 dx = -4x + C$

4. $\int x^6 dx = \frac{x^7}{7} + C = \frac{1}{7}x^7 + C$

5. $\int x^{-2} dx = -x^{-1} + C$

6. $\int \sqrt{x} dx = \frac{x^{\frac{3}{2}}}{(\frac{3}{2})} + C = \frac{2}{3}x^{\frac{3}{2}} + C$

7. $\int 5x^9 dx = 5 \left(\frac{x^{10}}{10} \right) + C = \frac{1}{2}x^{10} + C$

8. $\int 4x^3 dx = 4 \left(\frac{x^4}{4} \right) + C = x^4 + C$