

Basic Anti-Derivatives - Part 2

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Name _____

Exercises (Answers are on the next page)

1. $\int (6x^4 + 8x^2 + 4) dx =$

2. $\int (5x^4 + 8x^3 + 6x^2 + 4x + 3) dx =$

3. $\int (3 \sin(x) - 8 \sec^2(x) + x) dx =$

4. $\int (5 \sec(x) \tan(x) + 3\sqrt{x}) dx =$

5. $\int (8x^5 - 3x^4 + 2x^2 + 5) dx =$

6. $\int (4x^5 - 4x^3 + 6x^2 + 2x + 2) dx =$

Answers

1. $\int (6x^4 + 8x^2 + 4) dx = \frac{6}{5}x^5 + \frac{8}{3}x^3 + 4x + C$

7. $\int (5x^4 + 8x^3 + 6x^2 + 4x + 3) dx = x^5 + 2x^4 + 2x^3 + 2x^2 + 3x + C$

8. $\int (3 \sin(x) - 8 \sec^2(x) + x) dx = -3 \cos(x) - 8 \tan(x) + \frac{1}{2}x^2 + C$

9. $\int (5 \sec(x) \tan(x) + 3\sqrt{x}) dx = 5 \sec(x) + 2x^{\frac{3}{2}} + C$

10. $\int (8x^5 - 3x^4 + 2x^2 + 5) dx = \frac{4}{3}x^6 - \frac{3}{5}x^5 + \frac{2}{3}x^3 + 5x + C$

11. $\int (4x^5 - 4x^3 + 6x^2 + 2x + 2) dx = \frac{2}{3}x^6 - x^4 + 2x^3 + x^2 + 2x + C$