

Integrals and Natural Logarithms #3

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Name _____

Instructions

Answers appear on the ANSWERS page. Solutions appear on the SOLUTIONS page.

1. Compute: $\int (7x^4 + x^3 + 5x + 10) dx =$

2. Compute: $\int (8 \sec(x) \tan(x) + 5 \csc^2(x)) dx =$

3. Compute: $\int_{x=-1}^{x=1} (x^3 + 9x^2 + 3) dx =$

4. Compute: $\int \sqrt{4x^3 + 6x} (6x^2 + 3) dx =$

5. Compute: $\int \sec(x^2) \tan(x^2) x dx =$

6. Compute: $\int \frac{3x^2 + x + 2}{2x^3 + x^2 + 4x} dx =$

7. Compute: $\frac{d}{dx} [\ln(\tan(x))] =$

8. Compute: $\frac{d}{dx} [\ln(8x^3 + 5x)] =$

9. Compute: $\frac{d}{dx} [\ln(x \sin(x))] =$

10. Compute: $\int_{x=0}^{x=1} (1 - x^2)^2 x dx =$