

Integrals and Natural Logarithms #7

FALL 2019

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Name _____

1. Compute: $\int (2x^5 - 6x^3 + 4x + 8) dx =$
2. Compute: $\int (5 \cos(x) - 7 \sec^2(x)) dx =$
3. Compute: $\int_{x=0}^{x=2} (8x^3 + 9x^2 + 2x) dx =$
4. Compute: $\int (x^3 + x^2)^4 (21x^2 + 14x) dx =$
5. Compute: $\int \sin(\sec(x)) \sec(x) \tan(x) dx =$
6. Compute: $\int \frac{6x^2+3x+3}{(4x^3+3x^2+6x)} dx =$
7. Compute: $\frac{d}{dx} [\ln(\sin(x) + \cos(x))] =$
8. Compute: $\frac{d}{dx} [\ln(8x^2 - 7x + 5)] =$
9. Compute: $\frac{d}{dx} \left[\ln \left(\sqrt{\sin(x) \cos(x)} \right) \right] =$
10. Compute: $\int_{x=0}^{x=3} \sqrt{x+1} dx =$