

MTH 1126 Test #1

FALL 2015

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Name _____

Show CLEARLY how you arrive at your answers

1. Compute: $\int_{x=1}^{x=3} (3x^2 - 6x + 2) dx =$

2. Compute: $\frac{d}{dx} [e^{\tan(3x)}] =$

3. Compute: $\int \cos(5x^3) x^2 dx =$

4. Compute: $\frac{d}{dx} \left[\ln \left(\frac{3x^2+2x}{8x^5+2} \right) \right] =$

5. Compute: $\frac{d}{dx} [\arcsin(2x)] =$

6. Compute: $\int e^{(x^3+1)} x^2 dx =$

7. Re-write the equation below as an equivalent algebraic equation.

$$y = \tan(\arcsin(x))$$

8. Compute: $\int \frac{e^{2x}+1}{e^{2x}+2x} dx =$

9. Compute: $\int \frac{x}{4+x^4} dx =$

10. Compute: $\int_{x=0}^{x=1} (x^2 + 1)^5 x dx =$