

MTH 1125 2pm Class - Test #4

FALL 2020

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Name _____

Show **CLEARLY** how you arrive at your answers!

1. **Compute:** $\int (20x^3 + 36x^2 - 12x + 9\sqrt{x} + 4) dx =$

2. **Compute:** $\int (6x^2 + 24x + 8)^4 (x + 2) dx =$

3. **Compute:** $\int (2 \cos(x) - 5 \csc^2(x) + 2 \sec(x) \tan(x)) dx =$

4. **Compute:** $\int \sin(5x^3 + 6x + 3)(5x^2 + 2) dx =$

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

6. **Compute:** $\int_0^1 (x^2 + 1)^4 x dx =$ (The answer may not be a whole number)

7. **Compute:** $\frac{d}{dx} [\ln(5x^3 + 4x^2 - 2x)] =$

8. **Compute:** $\int \frac{3x+2}{3x^2+4x+5} dx =$