

Name: \_\_\_\_\_ ID#: \_\_\_\_\_ Instructor: \_\_\_\_\_

Find the derivative of each of the following. Don't simplify your answers.

1.  $\frac{d}{dx} (3x^{12} - 6x^{-5} - 7x^{-8} + 10x - 3) =$

2.  $\frac{d}{dt} \sin(t^3 - 2t^2 + 5) =$

3.  $\frac{d}{dx} e^{4 \cos x} =$

4.  $\frac{d}{dx} [5(5x^{-10} + 12)^9] =$

5.  $\frac{d}{dx} [\cos(x) + (\cos x)^{20}] =$

6.  $\frac{d}{dx} [(\cot x)^5 + \sec(x)] =$

7.  $\frac{d}{dx} [(4x^3 + x) \cos(2x^{-8} + 2)] =$

8.  $\frac{d}{ds} \frac{3s^2 - 4s}{2 + \sin s} =$

9.  $\frac{d}{dx} \sqrt{\tan(x^3 - x^2 + 5)} =$

10.  $\frac{d}{dx} [(100 - \cos x)(x^3 - \sin(x - 2))] =$