

QUIZ 4

Instructions: Complete the following problems. You may use the derivative shortcuts developed in class to answer these problems, though you are encouraged to show as much work as possible so that partial credit may be awarded.

(1) (10 pts) Evaluate $\frac{d}{dx} [x^7 + 3x^2 + 1]$.

(2) (10 pts) Evaluate $\frac{d}{dx} [\sqrt{x} + \sin(x)]$.

(3) (10 pts) Evaluate $\frac{d}{dx} [\tan(x)]$.

(4) (10 pts) Evaluate $\frac{d}{dx} [2^x]$.

(5) (10 pts) Evaluate $\frac{d}{dx} \left[\frac{1}{x} + e^x + \cos(x) \right]$.

(6) (10 pts) Evaluate $\frac{d}{dx} [x^2 e^x + x e^x]$.

(7) (10 pts) Evaluate $\frac{d}{dx} [\sin(x) \cos(x)]$.

(8) (10 pts) Evaluate $\frac{d}{dx} \left[\frac{x^3+1}{e^x-x} \right]$.

(9) (10 pts) Evaluate $\frac{d}{dx} \left[\sqrt{\sec(x)} \right]$.

(10) (10 pts) Evaluate $\frac{d}{dx} [(x^2 + x)^7]$.

If you finish your quiz early, you can use this space to express your true feelings about calculus.