

**Quiz 6****Name:** \_\_\_\_\_**Week 8: 03/03/2020****Math 285: Spring 2020****Instructor: Garrett Hartshaw**

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**Instructions:**

Please answer the questions below. Show all your work. You may use a TI-84/85 (or equivalent) calculator.

Find the derivative of the following functions.

**Problem 1.** (5 points)  $f(x) = 5e^{2x}$

**Problem 2.** (5 points)  $f(x) = \log_2(3x^2 + 2x + 1)$

**Problem 3.** (5 points)  $f(x) = \tan(x)$

**Problem 4.** (5 points) Find both the first and second derivatives:  $f(x) = 5x^3 + 3x^2 + 2x + 7$