

Name \_\_\_\_\_

**You have 13 minutes for this quiz – no calculators allowed.**

1. (3 points) Find the derivative of the function  $g(x) = \frac{x^4 + 5 \tan x}{3x^2}$

2. (4 points) Find the  $x$ -coordinate for one of the points on the graph of the following function where the slope of the tangent line is equal to 2.

$$y = 8 \cos x + 6x + 13$$

3. (3 points) Find the second derivative  $f''(t)$  of the following function.

$$f(t) = t^5 e^t$$