

Name:

Quiz 5

Question 1 (5 points)

Find the first and second derivative of

$$f(x) = x(x^2 + 1)^2$$

Question 2 (5 points)

Find the third derivative of

$$g(x) = \sqrt{2t + 3}$$

Question 3 (10 points)

The demand function for a product is $p = -0.04x + 800$ where x is the quantity demanded and p is the unit price.

- a. find the revenue function.
- b. find the marginal revenue function.
- c. Evaluate $R'(5000)$ and interpret your result.