

Name _____

MATH-1951

Quiz 4 - (3.2, 3.3, 3.4)

Answer the following questions, and show your work. Answers need not be simplified.

Scientific calculator only.

[1] (3 points total) Find the derivative of

$$f(x) = \sin(-x^2)$$

[2] (3 points total) Find $f'(x)$ and $f''(x)$ of

$$f(x) = 2x^5 e^x$$

[3] (2 points total) Differentiate

$$f(x) = \frac{x-1}{x+1}$$

[4] (2 points total) For what value(s) of x does the graph of f have a horizontal tangent?

$$f(x) = \frac{x^4 - 6x^3 + 9x^2}{3x}$$