

NAME: _____

Panther ID: _____

Quiz 2 - MAC 2311, Spring 2016

To receive credit you **MUST SHOW ALL YOUR WORK**. Answers which are not supported by work will not be considered.

1. (2 pts) Fill in below the definition with limit of the derivative. Be precise.

$$f'(x) =$$

2. (6 pts) Find the derivative of each of the following functions. You **do not** have to simplify.

(a) $f(x) = x^7 - \frac{4}{\sqrt{x}}$

(b) $g(x) = (3x^2 + \pi^3)(5x^3 + 7)$

(c) $h(x) = \frac{x}{x^2 + 2}$

3. (4 pts) Find the equation of the tangent line to the graph of $f(x) = 2x - \frac{1}{x}$ at $x = 1$.