Quiz 2 – Math 224

Print Name:

1) Using definition of derivative find the derivative of the function $f(x) = \sqrt{x}$.

2) For what values of x is f discontinuous? Explain your answer.

$$f(x) = \begin{cases} 1 + x^2 & \text{if } x \leq 0 \\ 2 - x & \text{if } 0 < x \leq 2 \\ (x-2)^2 & \text{if } x > 2 \end{cases}$$

3) Find an equation of the tangent line to the graph of $y = g(x)$ at $x = 6$ if $g(6) = -2$ and $g'(6) = 4$.