

Name: _____

Date: _____

Calculus 12 LG 1 Quiz Ver A

/22

1. If $f(x) = x^2 + 3x - 10$

a) For what values of x is $f(x)=0$? (2 marks)

b) For what values of x is $y \geq 0$? (2 marks)

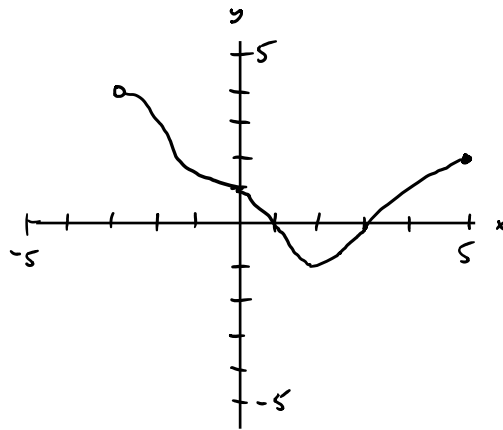
c) Does the function have a maximum or a minimum? What is the maximum or minimum y value and for what x value does it occur at? (2 marks)

2. Write the equation of the function $y = |x - 3| - 1$ in piecewise form.

(3 marks)

3. Determine the domain and range of the following functions. (2 marks each)

a)



b) $y = \frac{x^2 - 3x - 10}{x + 2}$

4. If $f(x) = 7 - 3x$ and $g(x) = x^2 + 1$, determine the following:
(2 marks each)

a) $f(x - 1)$

b) $g(2 - 3x)$

c) $f \circ g$ or $f(g(x))$

5. Determine the equation of a line that is parallel to $2x + 3y = 7$ and goes through the point $(-2, 5)$. (3 marks)