

Name: _____

Date: _____

Calculus 12 LG 1 Quiz Ver B

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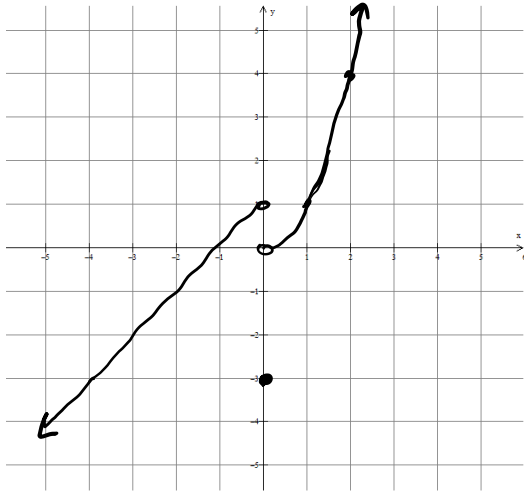
1. If $f(x) = x^2 - 4x - 12$

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

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

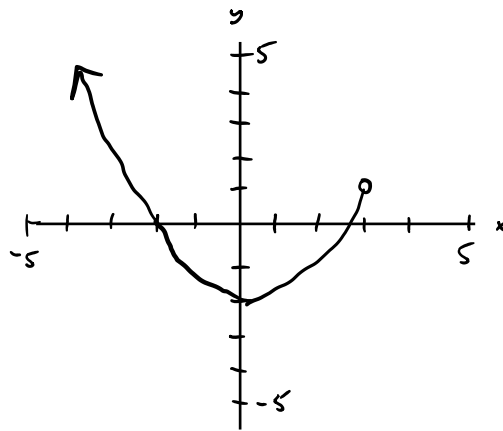
c) Does the function have a maximum or a minimum? What is the maximum or minimum y value and for what x value does it occur at? (2 marks)

2. Write the equation of the function below in piecewise form. (3 marks)



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

a)



b) $y = \frac{x^2 - 4}{x - 2}$

4. If $f(x) = x + 5$ and $g(x) = 1 - x^2$, determine the following:
(2 marks each)

a) $f(x + 1)$

b) $g(2x - 1)$

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

5. Determine the equation of a line that is perpendicular to $2x - 5y = 10$ and goes through the point $(1, -3)$. (3 marks)