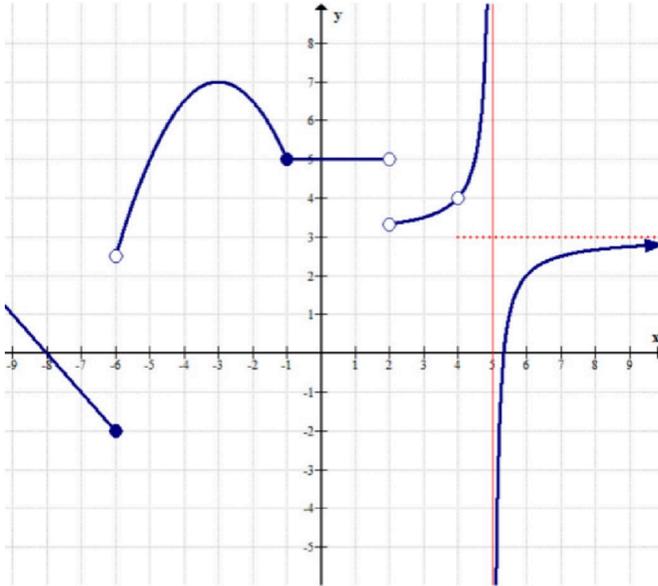


Date: _____

Name: _____

MCV4U - Continuity Quiz

1. [5 marks] For the following graph, determine the x-axis location of where it is discontinuous and classify each discontinuity. Explain your answer.



2. [10 marks] Determine if each function is continuous. If the function is not continuous, find the x-axis location of and classify each discontinuity.

a) $f(x) = \frac{x+1}{x^2+x+1}$

b) $f(x) = \frac{x+1}{x^2-x-2}$

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