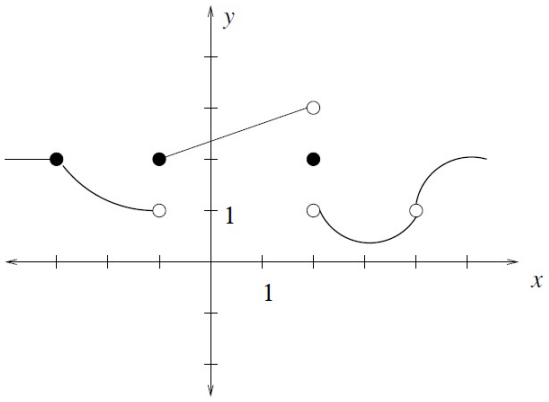
Math 12002 Analytic Geometry & Calculus I Fall 2016
Quiz 2 Matt Alexander
Name: _____ Quiz Score: _____/10

**1.** The function $f$ is depicted below. (4 pts)




**a)** Is $f$ continuous at $x = -3$? Explain.

**b)** Is $f$ continuous at $x = 2$? Explain.

**2.** Determine whether the following function is continuous at the given value (3 pts).

$$f(x) = \begin{cases} \frac{x^2+x}{x^2+7x+6} & \text{if } x \neq -1 \\ 5 & \text{if } x = -1 \end{cases} \quad \text{at } a = -1$$

**3.** Use the Intermediate Value Theorem to explain why $f(x) = x^2 - 5$ has a root between 2 and 3.(3 pts).