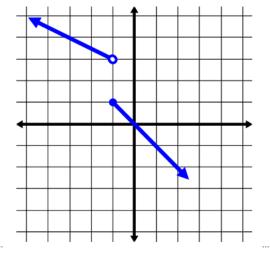
Writing Piecewise Functions/ Piecewise Characteristics

1. Write the equation for the piecewise function whose graph is shown.

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

Analyze the characteristics of the function shown in the graph.

- a. domain: _____
- b. range: _____
- c. x-intercept(s): _____
- d. y-intercept: _____
- e. interval of increase: _____
- f. interval of decrease:
- g. point(s) of discontinuity: _____

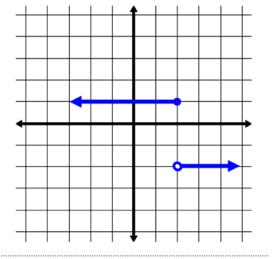


2. Write the equation for the piecewise function whose graph is shown.

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

Analyze the characteristics of the function shown in the graph.

- a. domain: _____
- b. range: _____
- c. x-intercept(s): _____
- d. y-intercept: _____
- e. interval of increase: _____
- f. interval of decrease:
- g. point(s) of discontinuity:

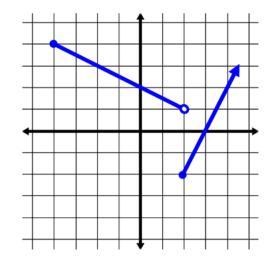


3. Write the equation for the piecewise function whose graph is shown.

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

Analyze the characteristics of the function shown in the graph.

- a. domain: _____
- b. range: _____
- c. x-intercept(s): _____
- d. y-intercept: _____
- e. interval of increase:
- f. interval of decrease:
- g. point(s) of discontinuity:

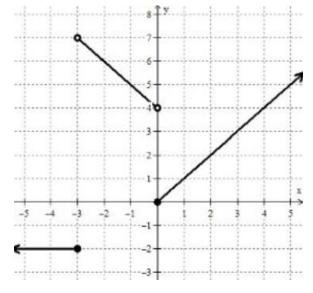


4. Write the equation for the piecewise function whose graph is shown.

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

Analyze the characteristics of the function shown in the graph.

- domain: _____ a.
- b. range: _____
- x-intercept(s): _____ c.
- d. y-intercept: _____
- interval of increase: _____ e.
- f. interval of decrease: _____
- point(s) of discontinuity: g.



5. Write the equation for the piecewise function whose graph is shown.

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

Analyze the characteristics of the function shown in the graph.

- domain: _____ a.
- b. range: _____
- x-intercept(s): c.
- d.
- y-intercept: _____ interval of increase: _____ e.
- interval of decrease: _____ f.
- point(s) of discontinuity: _____ g.

