Rational Equations Video Examples   Name:_____ Date: _____

Directions: Follow along with the video to graph the vertical and horizontal asymptotes. Graph the x-intercepts and some helpful points, then sketch the graph.

Rate the helpfulness of the video on 0 (no help at all) to 4 (very helpful) : _____   How can it help more?
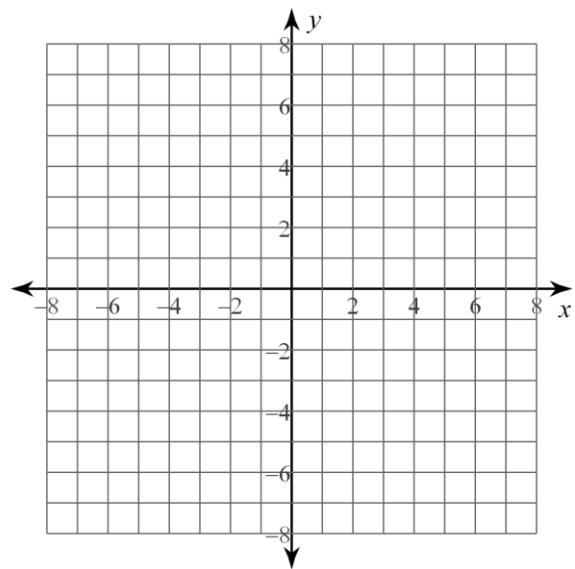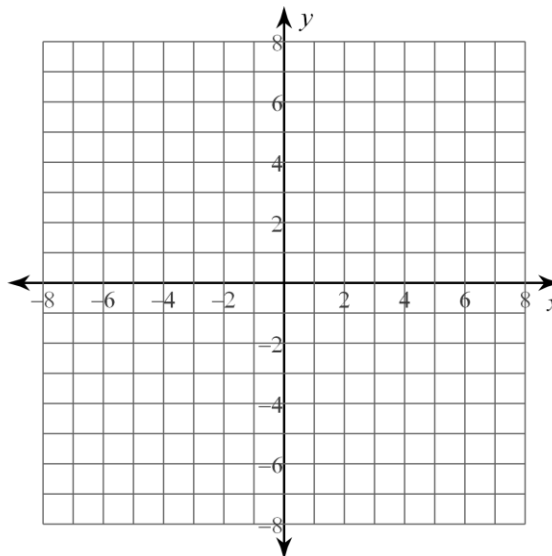
1.

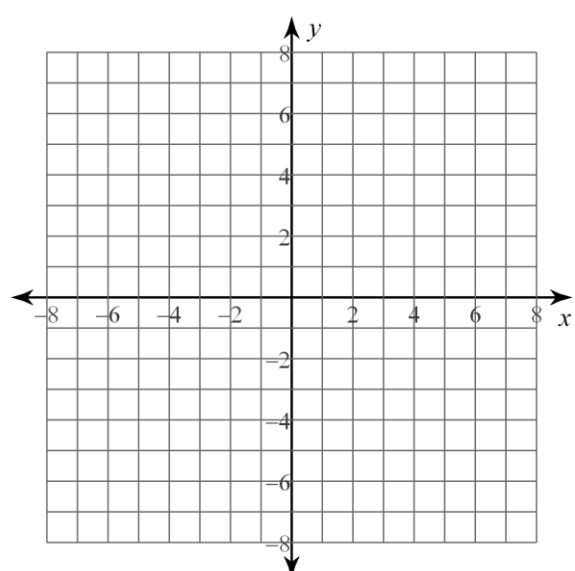$$f(x) = \frac{3}{x - 2}$$
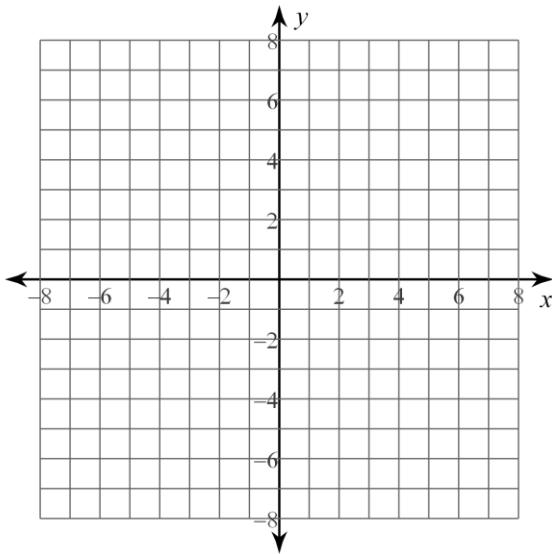
2.

$$f(x) = -\frac{2}{x^2 - x - 6}$$

3.

$$f(x) = \frac{-3x - 3}{x + 2}$$
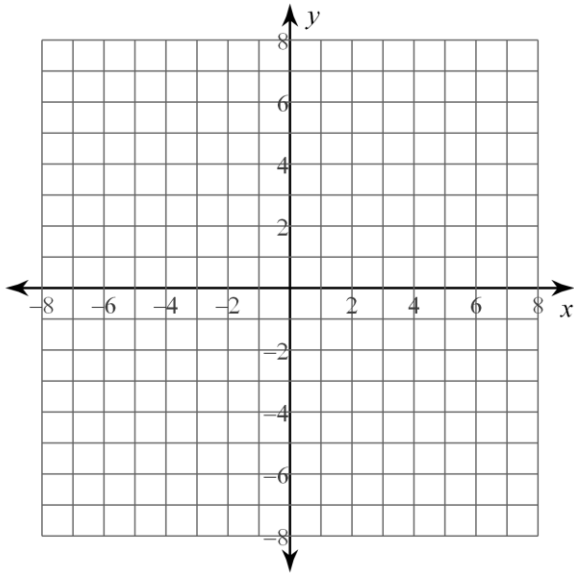

4.

$$f(x) = \frac{-x^2 + 16}{x^2 - 9}$$
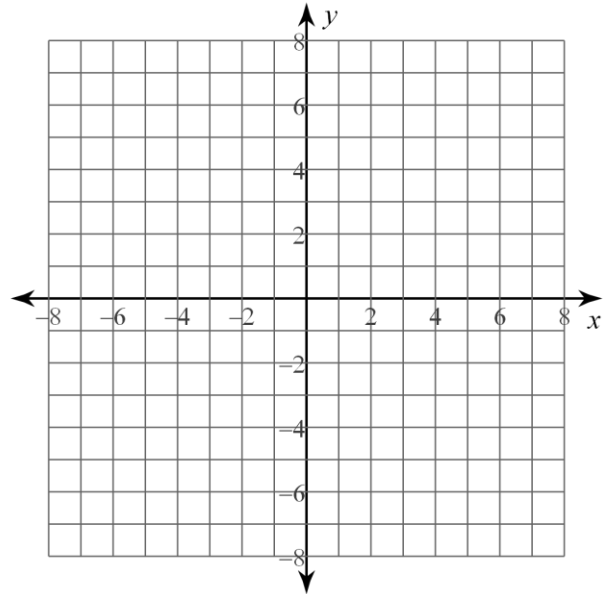
Rational Equations Your Turn

Graph the vertical and horizontal asymptotes, x-intercepts(s), some helpful points and sketch the graph.
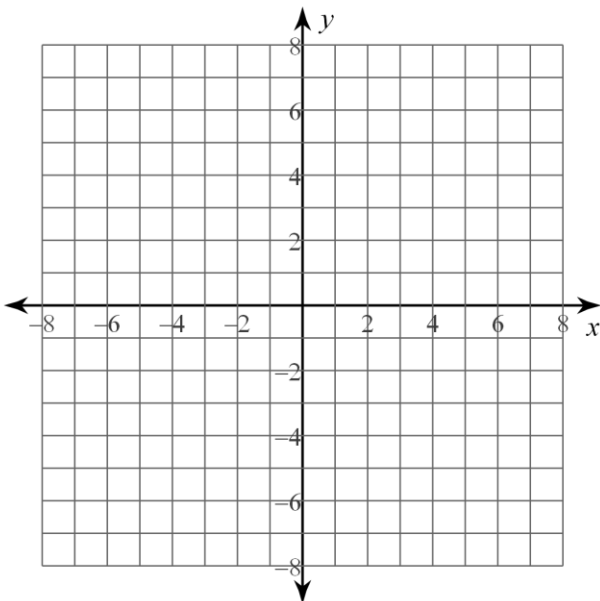State the domain and points of discontinuity.

1.

$$f(x) = \frac{1}{x^2 - 4}$$

$$f(x) = -\frac{3}{x^2 - x - 6}$$

$$f(x) = \frac{x^2 - x}{2x^2 - 18}$$

$$f(x) = \frac{-x^2 - 2x + 8}{x^2 - x - 6}$$