

Name: _____ Period: _____ Date: _____

Graphing Rational Functions Bell Work

Find $f(x)$ given that x is the value below.

$$y = \frac{5x-3}{2}$$

1. $x = 0$

2. $x = 2$

3. $x = -1$

4. $x = 4$

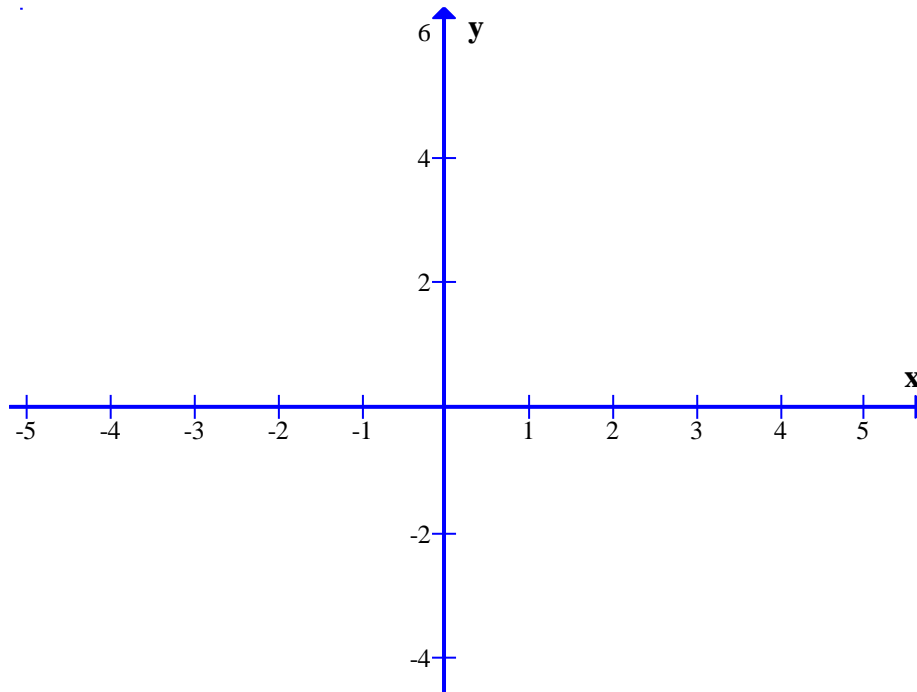
Draw a graph of a rational function by completing the table of values.

5. Complete the table of values for $y = \frac{x+1}{x-1}$.

x	-2	-1	0	1	2
y					

Graphing Rational Functions Bell Work

6. Draw the graph of $y = \frac{x+1}{x-1}$.



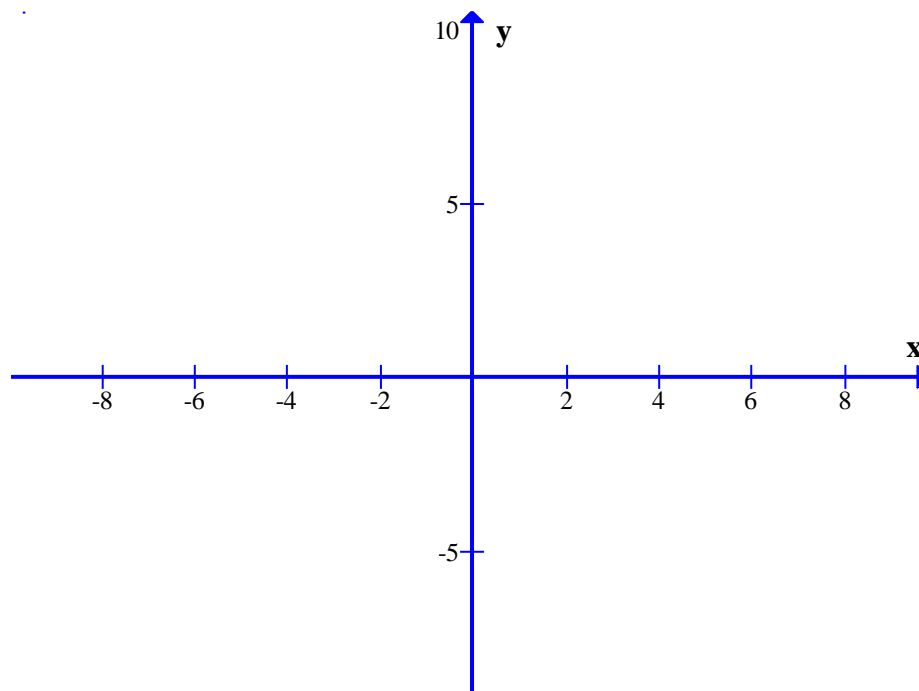
Draw a graph of a rational function by finding the x and y intercept.

7. Find the y intercept of $y = \frac{x+2}{2}$.

8. Find the x intercept of $y = \frac{x+2}{2}$.

Graphing Rational Functions Bell Work

9. Draw the Graph $y = \frac{x+2}{2}$.



Graphing Rational Functions Bell Work

Answer:

Find $f(x)$ given that x is the value below.

$$y = \frac{5x-3}{2}$$

1. $x = 0$

Solution:

$$y = \frac{5(0)-3}{2} = -\frac{3}{2}$$

2. $x = 2$

Solution:

$$y = \frac{5(2)-3}{2} = \frac{7}{2}$$

3. $x = -1$

Solution:

$$y = \frac{5(-1)-3}{2} = \frac{-8}{2} = -4$$

4. $x = 4$

Solution:

$$y = \frac{5(4)-3}{2} = \frac{17}{2}$$

Draw a graph of a rational function by completing the table of values.

5. Complete the table of values for $y = \frac{x+2}{2}$.

X	-2	-1	0	1	2
y					

Solution:

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

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

$$f(0) = \frac{0+2}{2} = 1$$

$$f(1) = \frac{1+2}{2} = \frac{3}{2}$$

$$f(2) = \frac{2+2}{2} = 2$$

6. Draw the graph of $y = \frac{x+2}{2}$.

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

Graphing Rational Functions Bell Work

Draw a graph of a rational function by completing the x and y intercept.

7. Find the x and y intercept of $y = \frac{x+1}{x-1}$.

Solution:

Y - Intercept

$$y = \frac{0+1}{0-1} = -1$$

X - Intercept

$$x+1=0$$

$$x = -1$$

8. Find the vertical and horizontal asymptote $y = \frac{x+1}{x-1}$.

Solution:

Vertical Asymptote

$$x-1=0$$

$$x=1$$

Horizontal Asymptote

$$y = \frac{1}{1} = 1$$

9. Draw the Graph $y = \frac{x+1}{x-1}$.

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