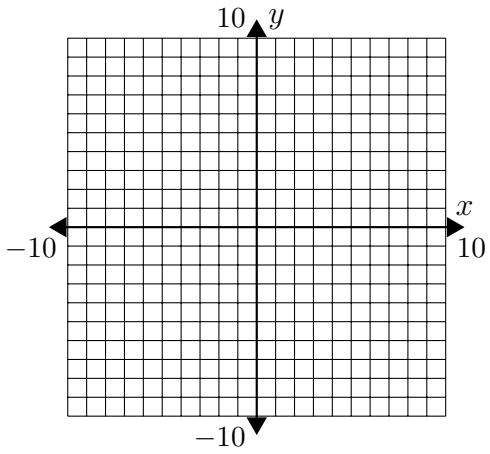
Extended Algebra 1 Name:_____

Graphing Worksheet 10

Complete the table and graph the points in the given coordinate plane. Then graph the line.

1. $y = -x$

x	y
-4	
-2	
0	
2	
4	



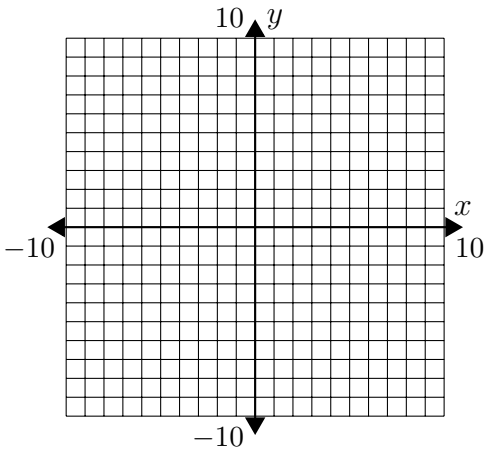
What is the change between the y-values?

What is the change between the x-values?

Write your above answers as a fraction $\left(\frac{y}{x}\right)$:

2. $y = 3x$

x	y
-6	
-3	
0	
3	
6	



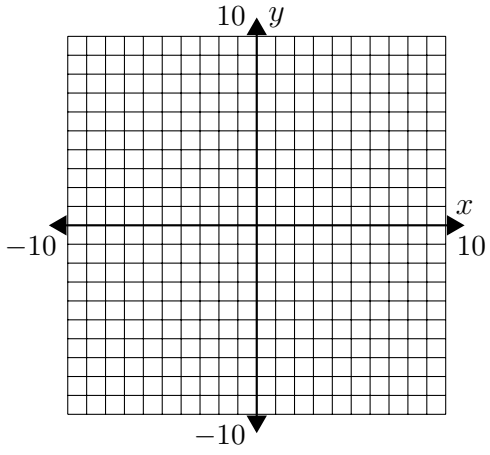
What is the change between the y-values?

What is the change between the x-values?

Write your above answers as a fraction $\left(\frac{y}{x}\right)$:

3. $y = \frac{1}{3}x$

x	y
-6	
-3	
0	
3	
6	



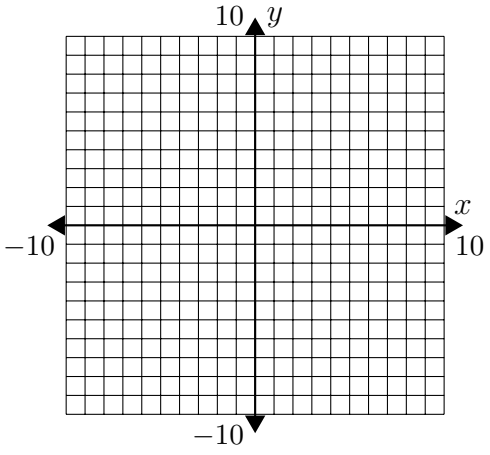
What is the change between the y-values?

What is the change between the x-values?

Write your above answers as a fraction $\left(\frac{y}{x}\right)$:

4. $y = \frac{1}{2}x + 1$

x	y
-4	
-2	
0	
2	
4	



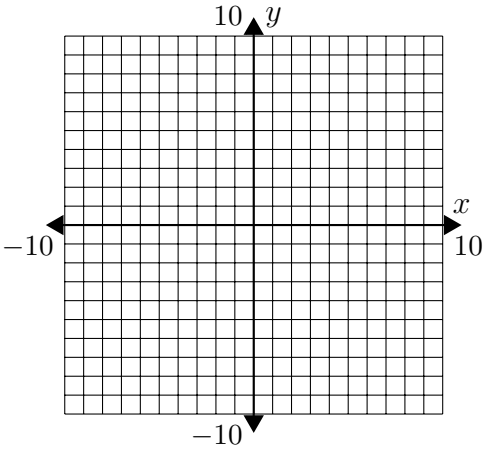
What is the change between the y-values?

What is the change between the x-values?

Write your above answers as a fraction $\left(\frac{y}{x}\right)$:

5. $y = 4x + 2$

x	y
-2	
-1	
0	
1	
2	



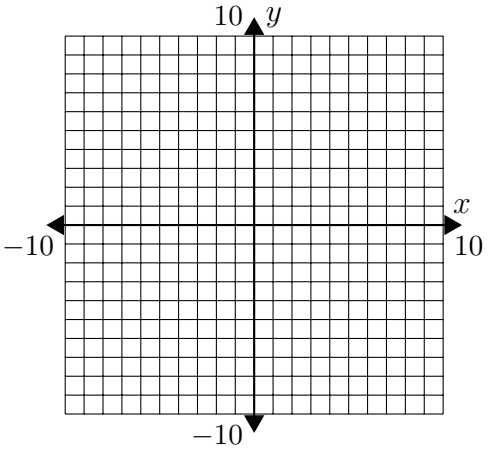
What is the change between the y-values?

What is the change between the x-values?

Write your above answers as a fraction $\left(\frac{y}{x}\right)$:

6. $y = \frac{2}{3}x - 2$

x	y
-6	
-3	
0	
3	
6	



What is the change between the y-values?

What is the change between the x-values?

Write your above answers as a fraction $\left(\frac{y}{x}\right)$:

7. Write a sentence that describes the connection between the equations above and your answers to the questions about the fractions $\left(\frac{y}{x}\right)$.

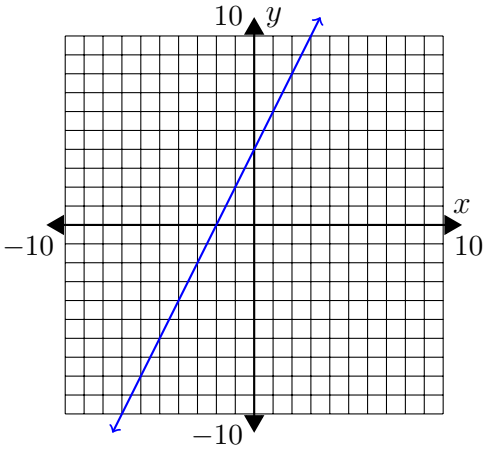
8. Write a sentence the describes the connection between the lines you graphed and your answers to the questions about the fractions $\left(\frac{y}{x}\right)$.

9. State the direction that the graphs of each of these equations moves. (Write your answers as a $\frac{y}{x}$ fraction.)

(a) $y = \frac{1}{3}x + 6$ **(b)** $y = 3x - 1$ **(c)** $y = -\frac{3}{4}x + 2$ **(d)** $y = 5x - 3$

10. Finish the equation for each graph:

(a) $y =$ ____$x +$ ____



(b) $y =$ ____$x +$ ____