

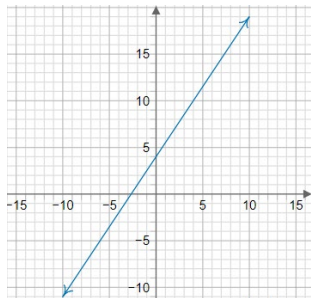
Graph Linear Equations using the Y-Intercept and Slope

Warmup

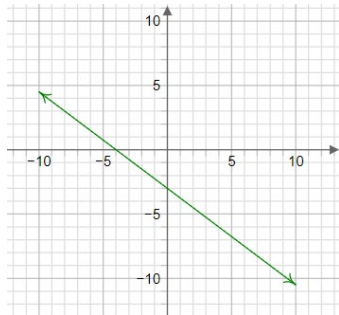
1.

Slope=_____

2. Give the ordered pair of the y-intercept.



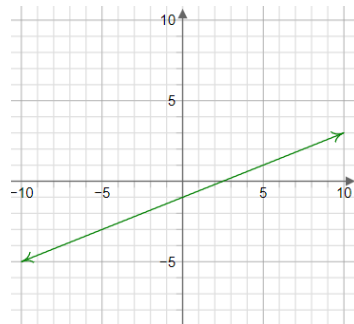
3. Give the slope of the linear equation.



4. Give the equation of the linear equation.

The y-intercept of the line is _____
The ordered pair of the y-intercept is (____, ____)

The slope is _____

The equation of the line is $y =$ _____

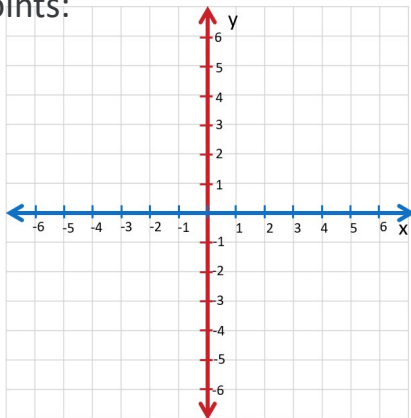
5. Plot the points:

A:(5,-2)

B:(0,3)

C:(-1,4)

D:(-4,0)



6. A point is defined by an ordered pair (____ , ____)

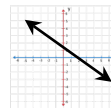
A point on the x-axis will have a 0 for the

_____.

A point on the y-axis will have a 0 for the

_____.

7. Determine if the slope is positive or negative.



Graph Linear Equations using the Y-Intercept and Slope

- I. Find the y-Intercept from Equations in $y=mx+b$ form

Homeschool



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Pre-Algebra and Geometry I

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I. Find the y-Intercept from Equations in $y=mx+b$ form

$Y = mx + b$ The slope-intercept equation of a linear equation

$$\text{Slope} = m = \frac{\text{Change in } y}{\text{Change in } x}$$

b = y-intercept

The ordered pair of the
y-intercept is (0 , b)

8. Give the ordered pair of the y-intercept.

$$y = -\frac{3}{2}x + 4$$

Give the ordered pair of the
y-intercept of the equation

$$y = -2x + 5$$

Give the ordered pair of the
y-intercept of the linear

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

9. Give the ordered pair of the y-intercept.

$$y = \frac{2}{7}x - 3$$

II. Determine the Slope of Linear Equations in the form $y = mx + b$

Slope is the ratio of the change in y to the corresponding x -values.

$$\text{Slope} = \frac{\text{change of } y}{\text{change of } x}$$

When the slope is a whole number, change it to a fraction by writing a 1 in the denominator

$$y = -2x + 5$$

$$y = 3x - 6$$

Give slope of the linear equation

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

10. Give the slope of the linear equation.

$$y = \frac{-3}{2}x + 4$$

11. Give the slope of the linear equation.

$$y = \frac{2}{7}x - 3$$

III. Graph Linear Equations in Slope-Intercept form

$Y=mx+b$ is the slope-intercept form of a linear equation, or line.
 $Y=-2x+1$

To graph the line:

1. The order pair of the y-intercept is _____, graph it.
2. Use the slope to make another point.

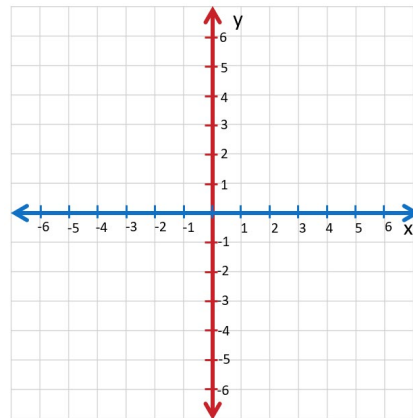
The change in y is _____

Start at the y-intercept, If the slope is positive go up, if the slope is negative, go down.

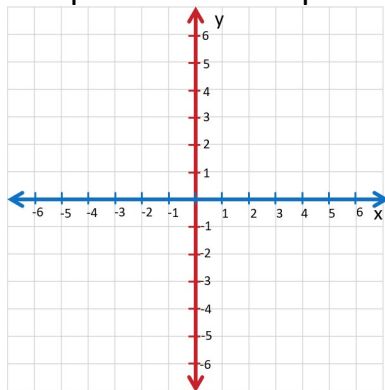
The change in x is _____, go the right

Graph the point

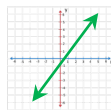
3. Draw a line through the 2 points. (You can use the slope to graph more points)
4. Label the line.



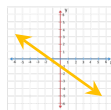
Graph the linear equation $y = -\frac{3}{2}x + 4$



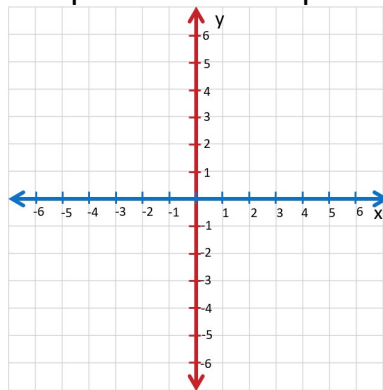
Positive Slope
Increasing



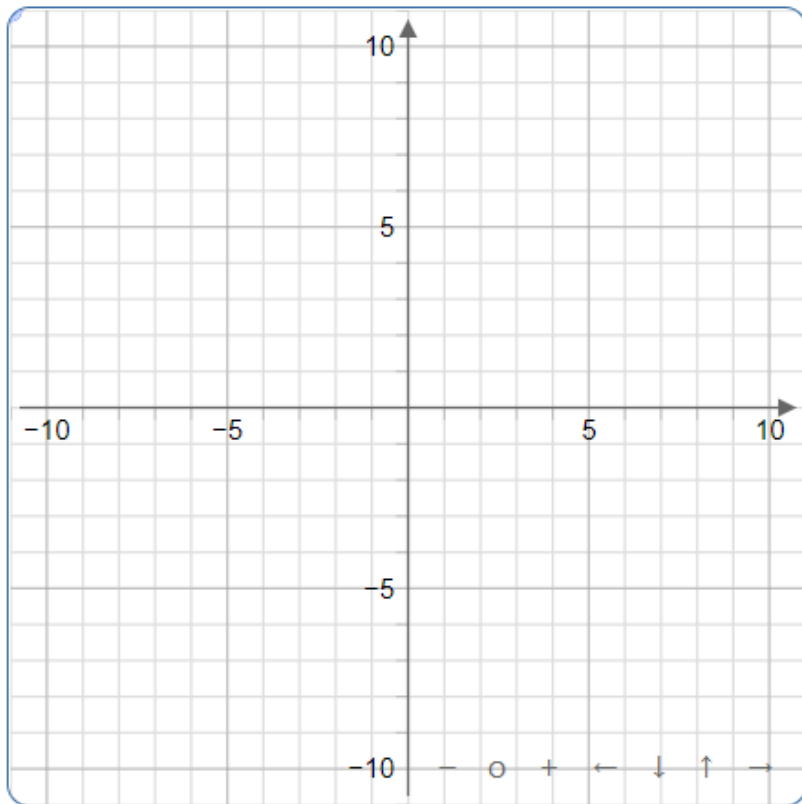
Negative Slope
decreasing



Graph the linear equation $y = \frac{2}{7}x - 3$



12. Graph the linear equation. $Y = -\frac{3}{2}x + 4$



13. Graph the linear equation. $Y = \frac{2}{7}x - 3$

