

# FG 1

Name: \_\_\_\_\_

Class: \_\_\_\_\_

Period: \_\_\_\_\_

## Driving Question:

Standard:

F-IF.C.7a. ... Graph linear and quadratic functions and show intercepts, maxima, and minima. Also A-SSE.A 1a, A-CED.A.2, F-IF.B.4, F-LE.A.2

Study/Review Questions:

## Definitions:

**Slope-Intercept Form:** \_\_\_\_\_, where  $m$  is considered the slope of the line and  $b$  is considered the  $y$ -intercept.

**Slope:** The "\_\_\_\_\_" of a line. Slope is calculated by rise/run or the change in  $y$  over change in  $x$ . (The  $mx$  portion of slope intercept form.)

**Y-Intercept:** The value of  $y$  at the point where the line crosses the  $y$ -axis.  $X=0$

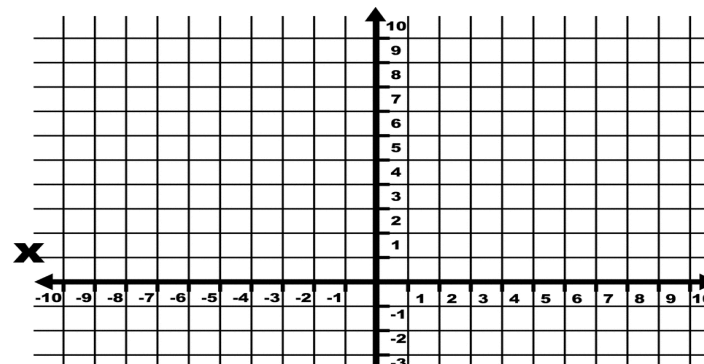
Remember: Slope is the "steepness" of a line that is calculated by rise / run.

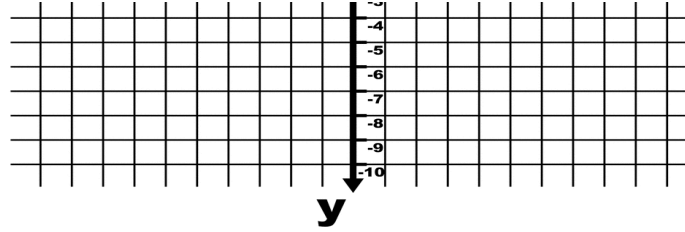
We can also look at it as change in  $y$  / change in  $x$ .

**Example:  $y = 2x$**

**2/1 (up 2 and 1 to the right)**

Input	Output

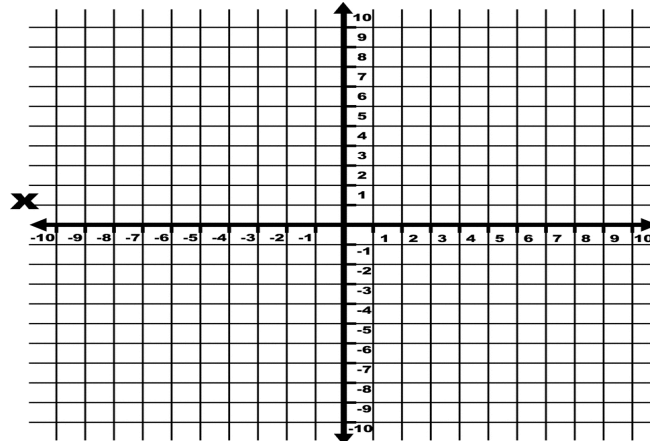


Example:  $y = -3x$

$-3/1$  (Down 3 and 1 to the right)

Input	Output



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y

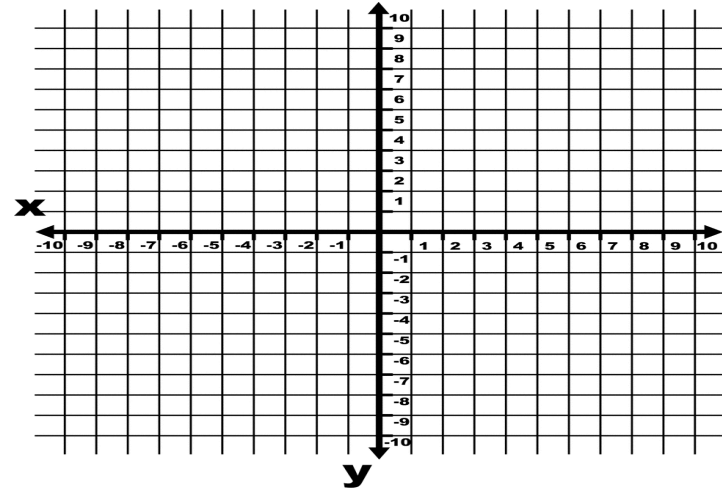
**The Y-Intercept** - The point where the line crosses the y-axis. Remember to carry the addition or subtraction sign with the number. Also remember that  $x=0$

Examples:                      y - int      ordered pair

$y = 2x + 4$                       \_\_\_\_\_      \_\_\_\_\_

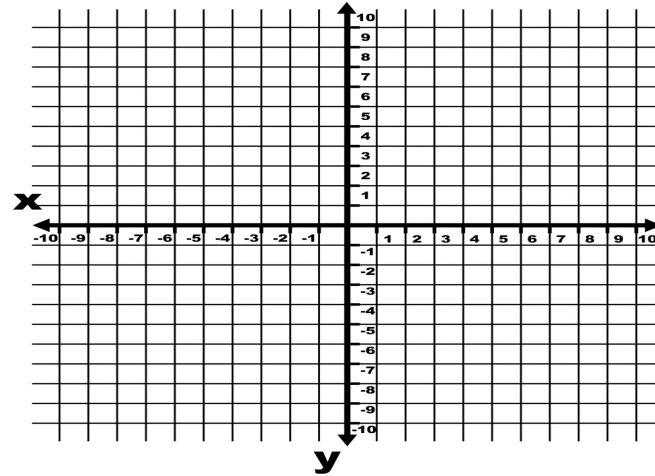
$y = x - 2$                         \_\_\_\_\_      \_\_\_\_\_

$y = -3x$                          \_\_\_\_\_      \_\_\_\_\_



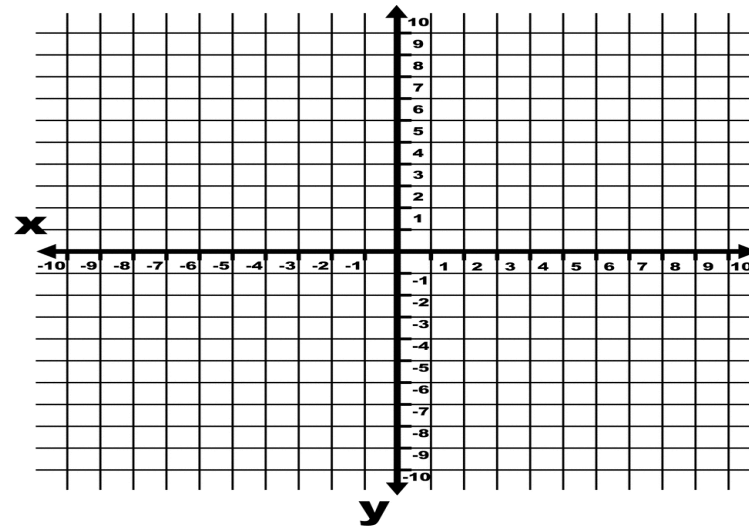
Slope Intercept Form  
Example:  $y = 2x - 3$

Input	Output



Example:  $y = -x + 2$

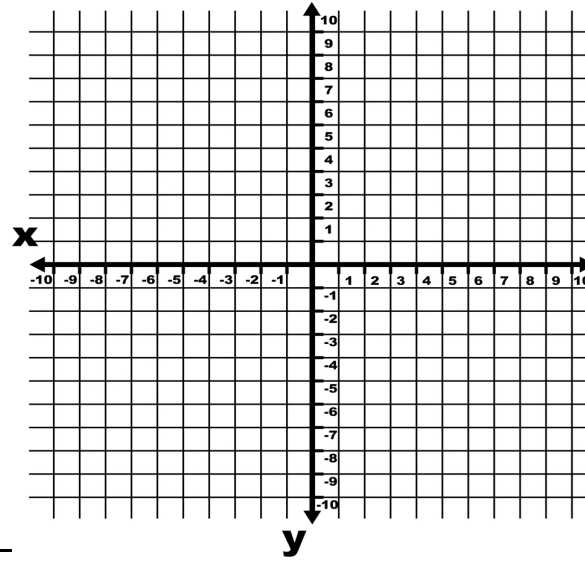
Input	Output



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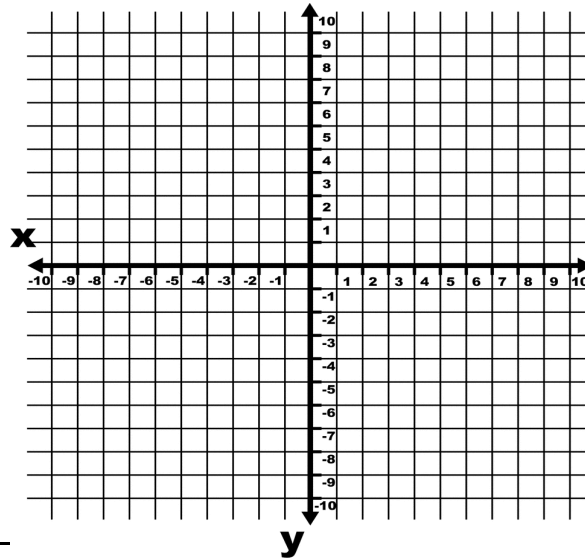
Example:  $y = 3x - 3$

Input	Output



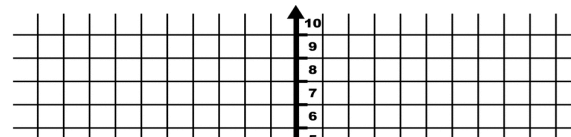
Example:  $y = (2/3)x + 1$

Input	Output



Example:  $y = 2x + 3$

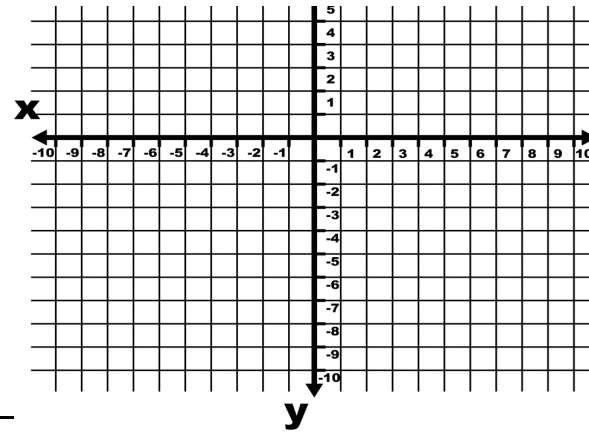
Try doing this example without the use



of an input/output table.

Hint: Slope = \_\_\_\_\_

Hint: Y-Intercept = \_\_\_\_\_



**Connections, Summary,  
Reflection, Analysis:**

**Slope intercept form is  $y = mx + b$**

~b is the y-intercept of the line. Remember, x always = 0 at the y-intercept.

~mx is the slope of the line

~Use input/output table until you are comfortable

~Geogebra.org if you are struggling

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