Bell Ringer

Evaluate. If $f(x) = -3x + -5$, find each function value.

1. $f(-4)$

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

Bell Ringer

Evaluate. If $f(x) = -3x + -5$, find each function value.

1. $f(-4)$

$f(x) = -3(-4) + -5$

$= 12 + -5$

$= 7$

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

$f(x) = -3\left(\frac{1}{3}\right) + -5$

$= -1 + -5$

$= -6$

Linear Function/Equation Notes

- Function/Equation with two variables, normally x and y or f(x)
- Solutions are ordered pairs (x , y) that make a true statement when inserted into the original equation.
- Infinite number of solutions.
- When graphed, the solutions form a line.

Find 4 ordered pairs that are solutions to the function/equation, then graph.

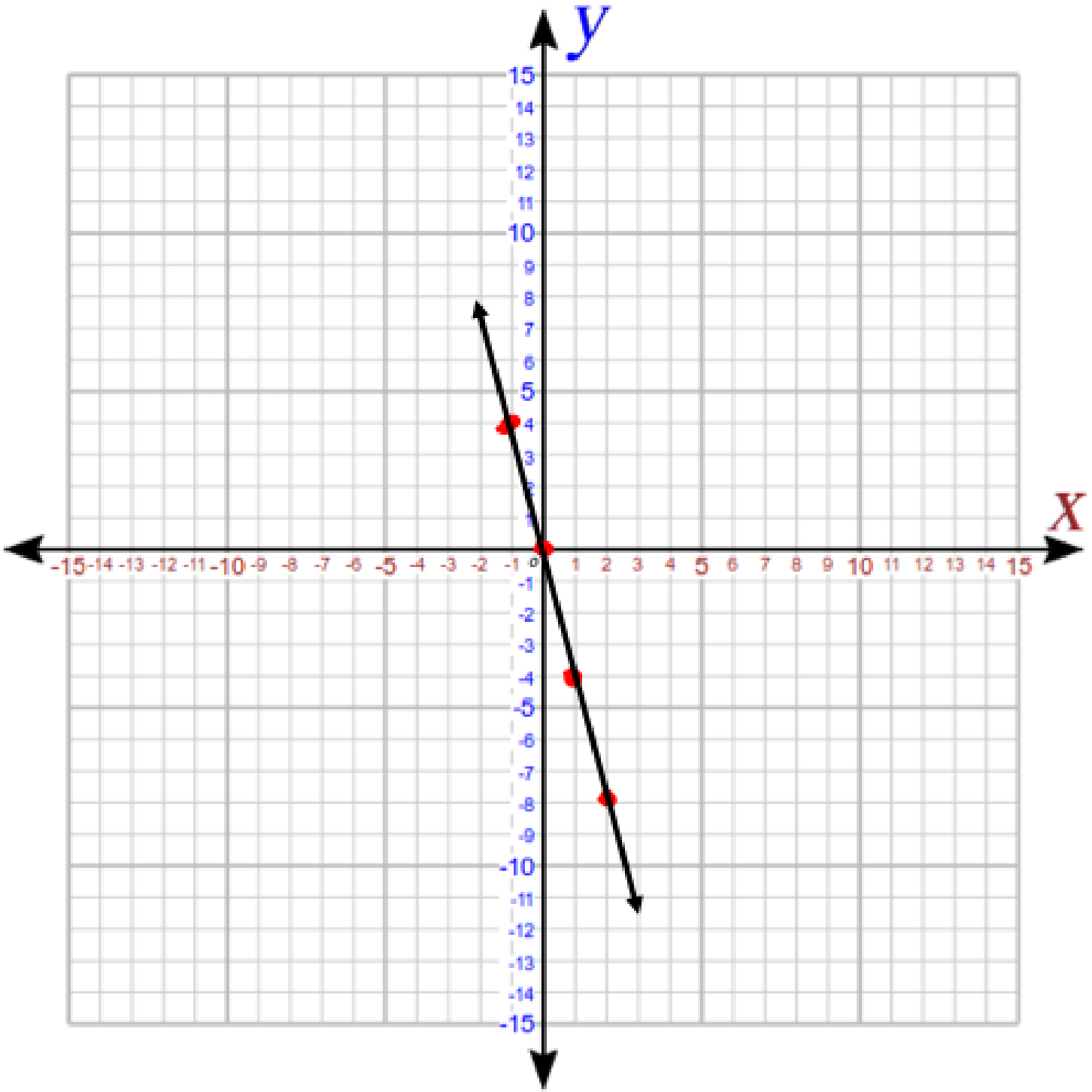
1) $y = -4x$

x	y
-1	4
0	0
1	-4
2	-8

Steps:

1. Select 4 "x" values
2. Substitute each "x" value into the equation and solve for y.
3. Graph the four ordered pairs on a piece of graph paper.
4. Connect the points with a line.

Graph of Example 1



Find 4 ordered pairs that are solutions to the function/equation, then graph.

2) $2x + y = 3$

x	y
3	-3
5	-7
0	3
-1	5

$2(3)+y=3$

$6+y=3$

$y=-3$

$2(5)+y=3$

$10+y=3$

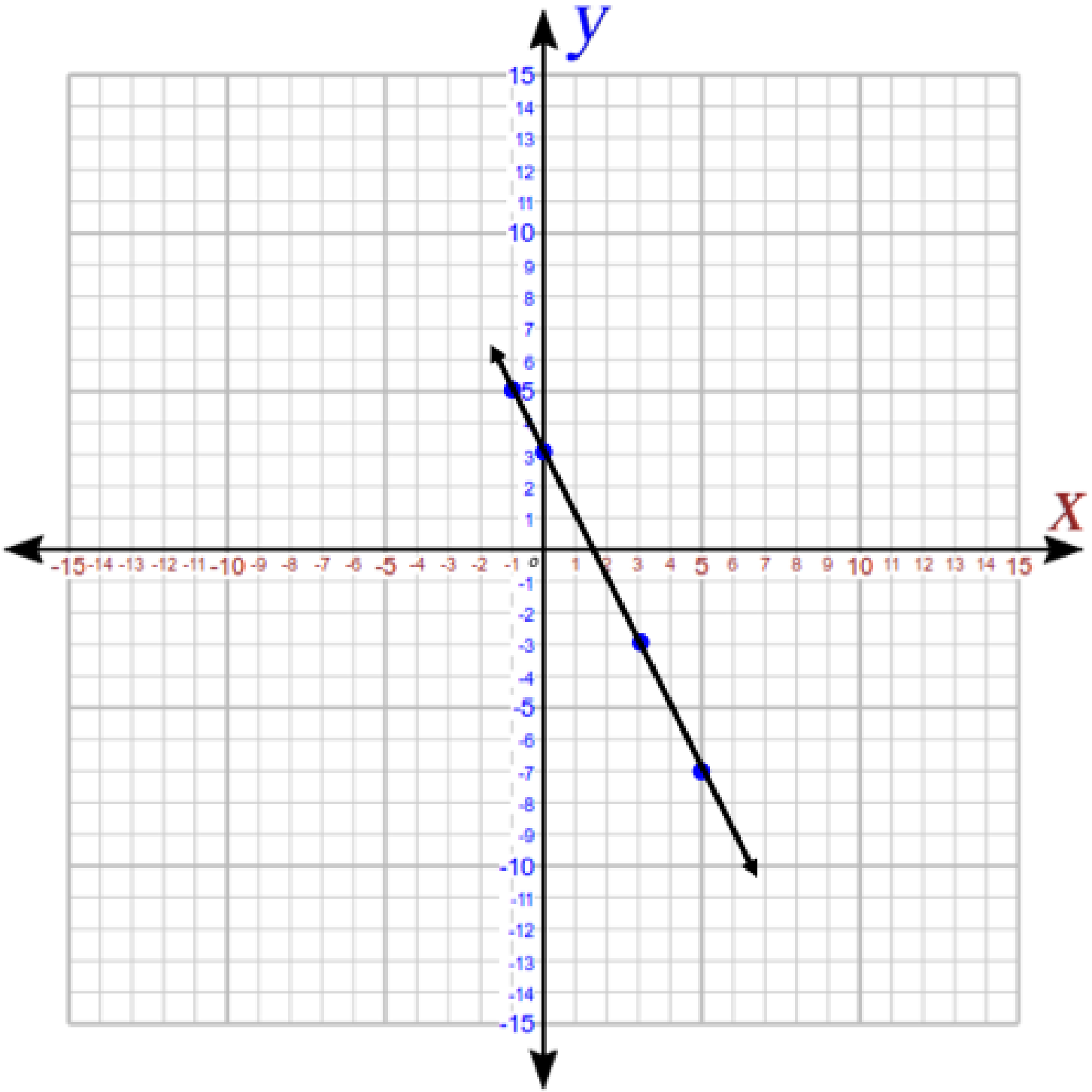
$y=-7$

$2(-1)+y=3$

$-2+y=3$

$y=5$

Graph of Example 2



Find 4 ordered pairs that are solutions to the function/equation, then graph.

3) $y = -x - 2$

$y = -1x - 2$

x	y
2	-4
1	-3
0	-2
-1	-1

Graph of Example 3