

Algebra 1

3.6

$$y = kx$$

Write an equation for a proportional relationship

Write an equation for a nonproportional relationship

linear

slope

constant of variation

$$y = kx + 3$$

y-intercept

directly proportional

proportional

nonproportional

whiteboards(?)

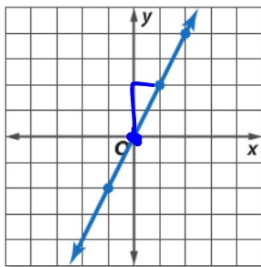
matching activ.

KeyConcept Proportional Relationship

Words

A relationship is proportional if its equation is of the form $y = kx$, $k \neq 0$. The graph passes through $(0, 0)$.

5.

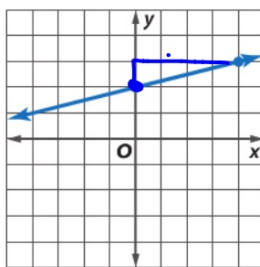


$$y = kx$$

yes

$$y = \frac{2}{1}x$$

8.



no

$$y = \frac{1}{3}x + 2$$

Guided Practice

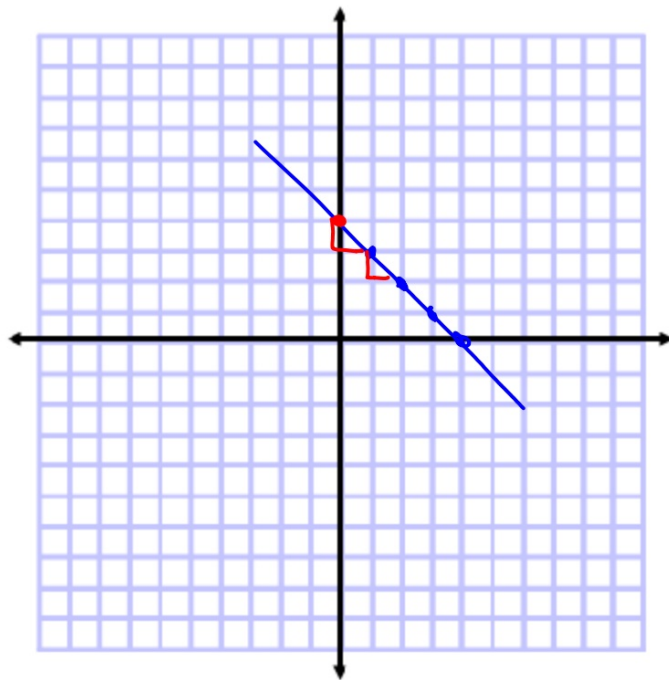
2. Write an equation in function notation for the relation shown in the table.

A.

x	1	2	3	4
y	3	2	1	0

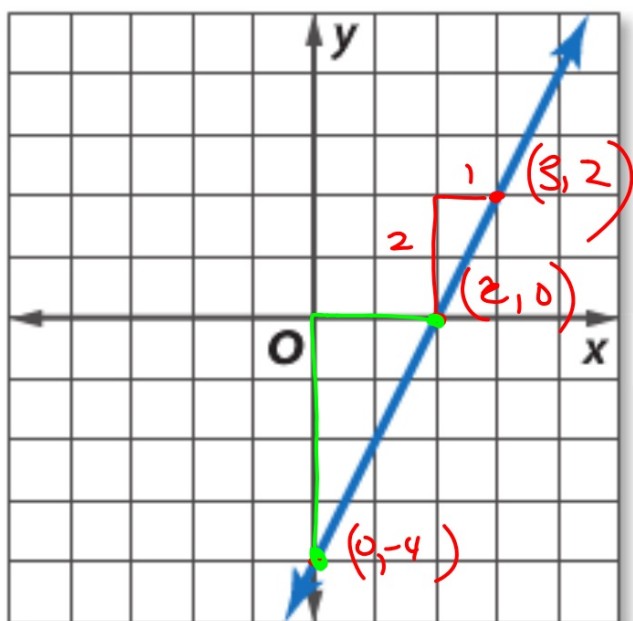
(-1)

$$y = -\frac{1}{1}x + 4$$
$$f(x) = -1x + 4$$



Whiteboards

- B. Write an equation in function notation for the graph.



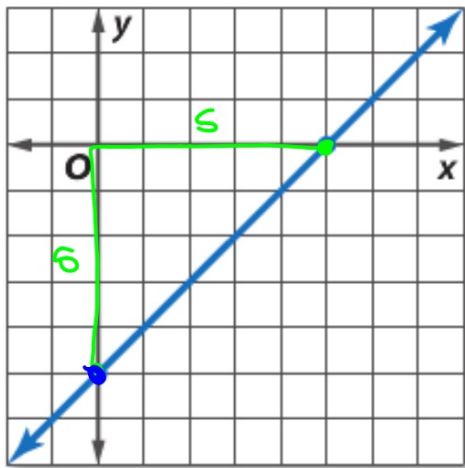
$$f(x) = 2x - 4$$

$$y = 2x - 4$$

$$\begin{array}{r} \uparrow \\ 4 \\ \hline 2 \end{array}$$

Write an equation in function notation

2.

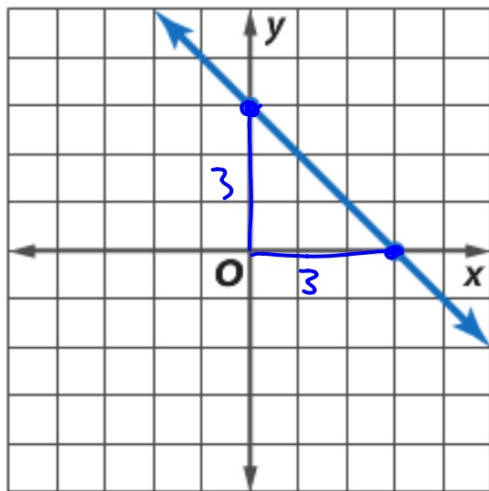


$$m = \frac{5}{5} = 1$$

$$y = 1x - 5$$

$$f(x) = x - 5$$

3.



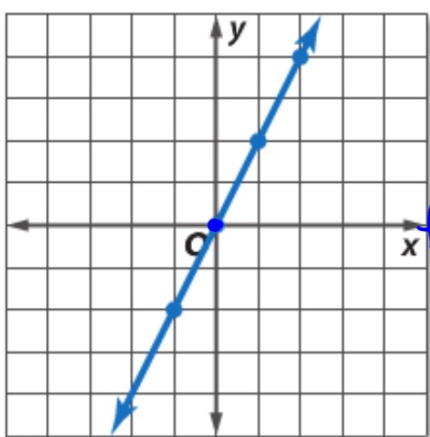
$$-\frac{3}{3}$$

$$y = -x + 3$$

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

Write an equation in function notation

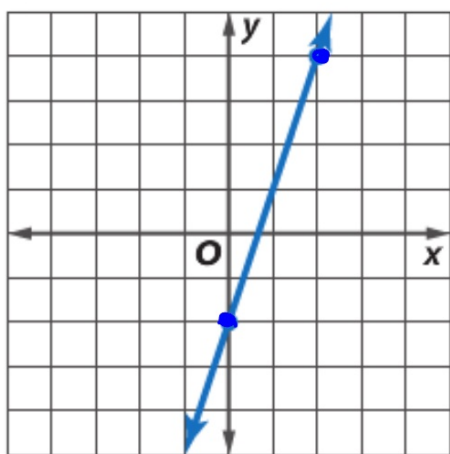
5



$$2x + 0$$

$$f(x) = \frac{2}{1}x$$

7.



$$f(x) = 3x - 2$$

$$\frac{3}{1}x + -2$$

