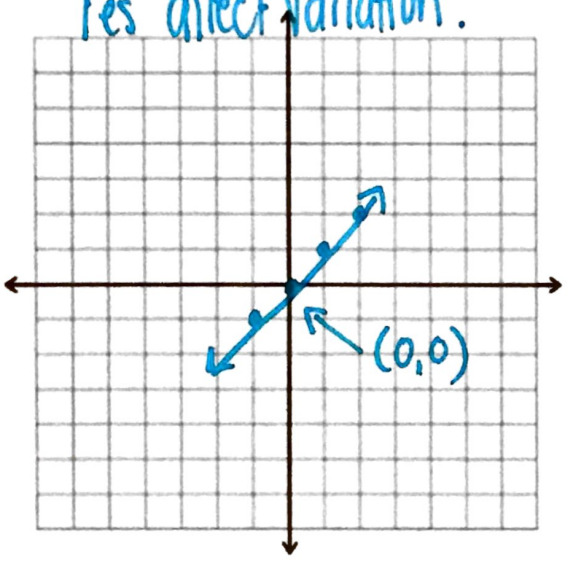
HW #13 Direct Variation Name: Key

1. What does it mean for x and y to vary directly?
   - As x changes y changes.
   - goes through (0,0)
2. What point is on the graph of every direct variation equation?
   (0,0) the origin!

Graph the ordered pairs on a coordinate plane. Do you think that graph shows that the quantities vary directly? Explain!

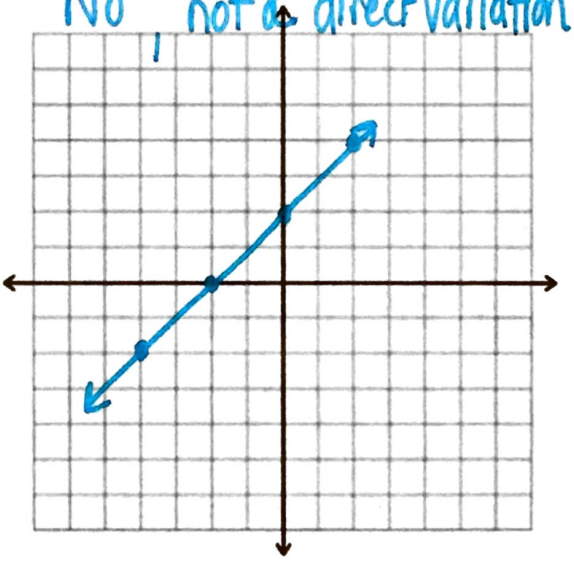
3. $(-1,-1)$ $(0,0)$ $(1,1)$ $(2,2)$.

Yes direct variation.



4. $(-4,-2)$ $(-2,0)$ $(0,2)$ $(2,4)$

No, not a direct variation



Tell whether x and y show direct variation. Explain your reasoning.

5.

x	0	1	2	3	4
y	0	2	4	6	8

+1 +1 +1 +2 +2 +2

yes!

6.

x	−2	−1	0	1
y	0	2	4	6

+1 +1 +1 +2 +2 +2

not a direct variation

7.

x	−1	0	1	2
y	−2	−1	0	1

+1 +1 +1 +1 +1 +1

not a direct variation

8.

x	0	3	6	9	12
y	0	2	4	6	8

+3 +3 +3 +2 +2 +2

Yes, direct variation

Tell whether x and y show direct variation. Explain your reasoning.

9. $y - x = 4$

+x +x

$y = x + 4$

not direct variation

10. $x = \frac{2}{5}$

$y = kx$

not direct variation

11. $y - 5 = 2x$

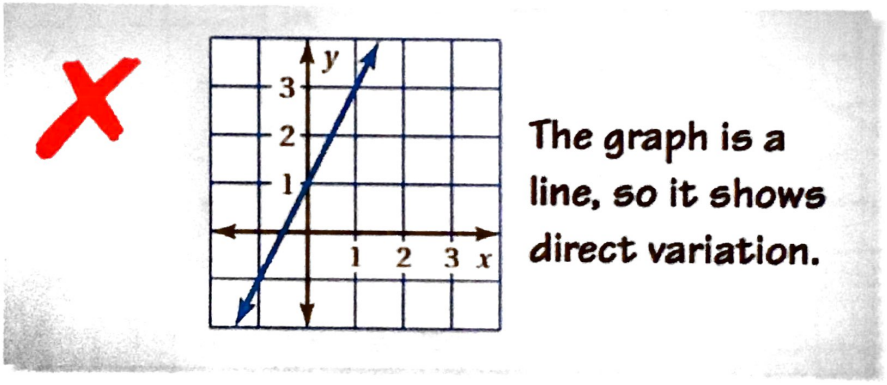
+5 +5

$y = 2x + 5$

not direct variation

Describe and correct the error in telling whether x and y show direct variation.

12.



False, direct variation graphs must go through (0, 0)