THIRD SPACE LEARNING

Types of Graphs Worksheet

Algebra

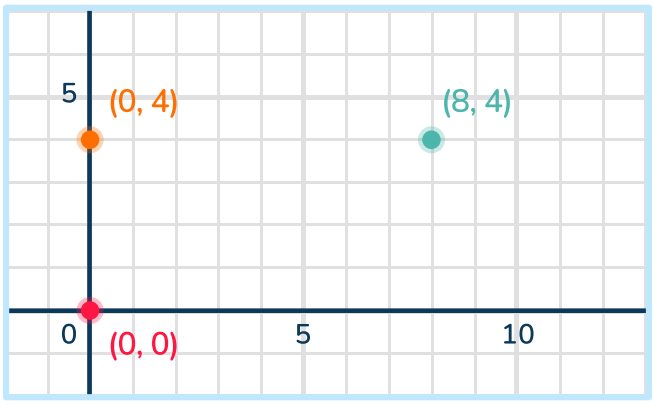
Grades 6 to 8

Skill Questions

Name: .....

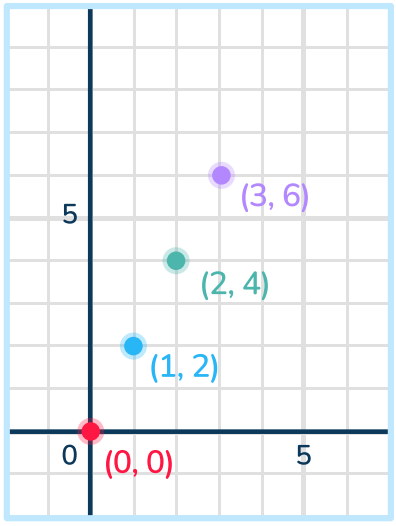
Date: .....

1 Where can you plot a fourth ordered pair to make a rectangle?



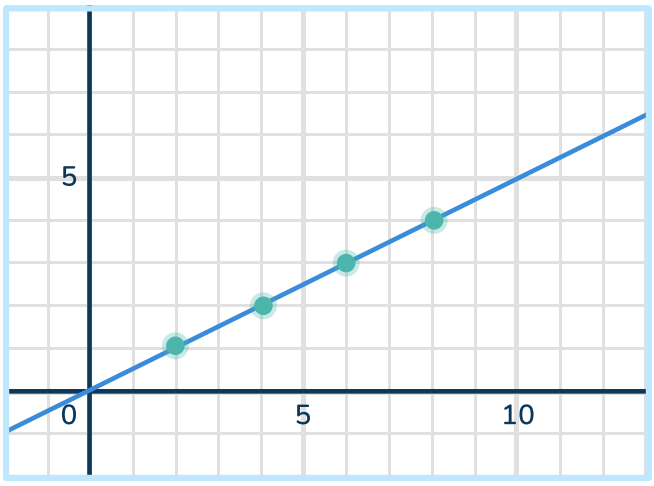
Answer

2 Describe if the points on the graph represent a proportional relationship.



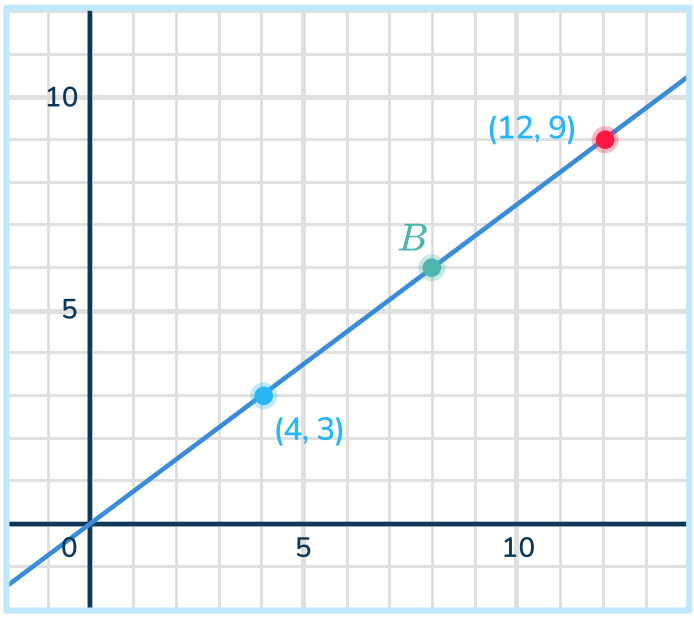
Answer

3 What is the constant of proportionality for the graph below?



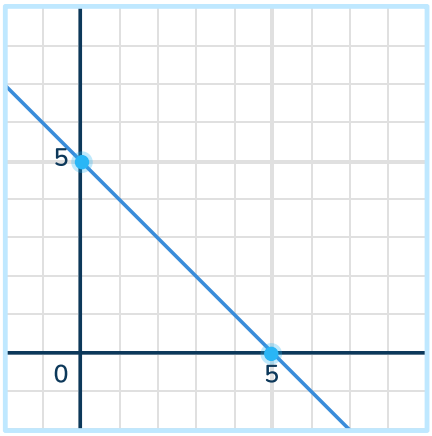
Answer

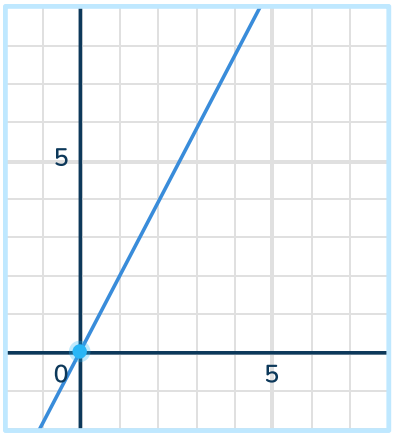
4 What is the ordered pair of point B?

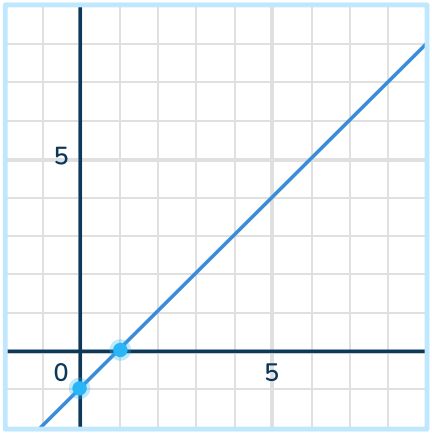


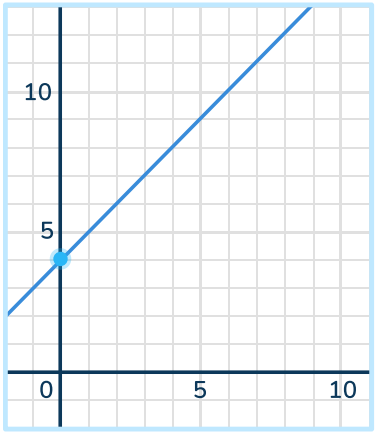
Answer

5 Circle the graph that represents a proportional relationship.

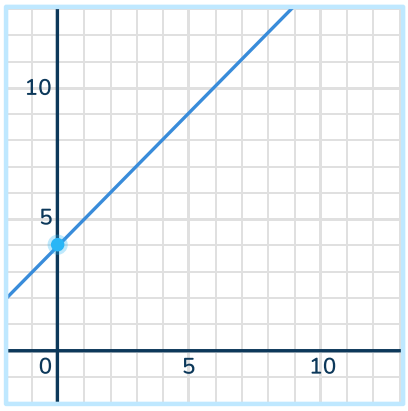


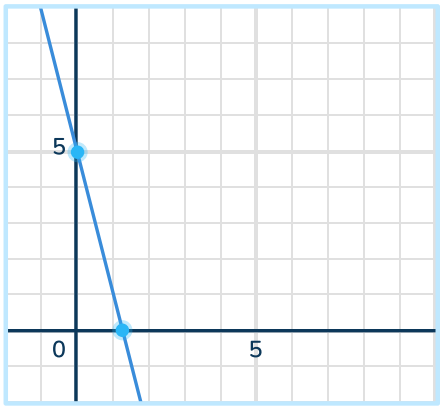


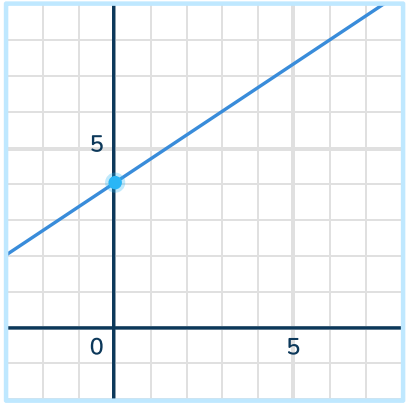


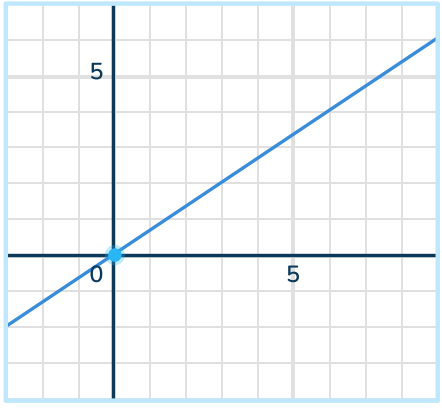


6 Circle the graph that represents a direct variation.

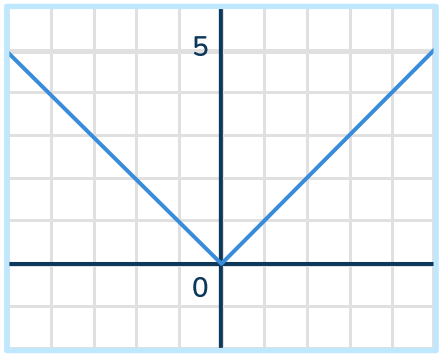


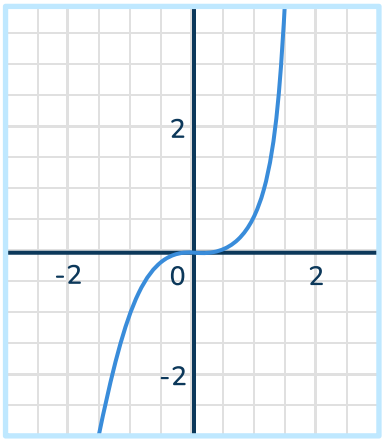


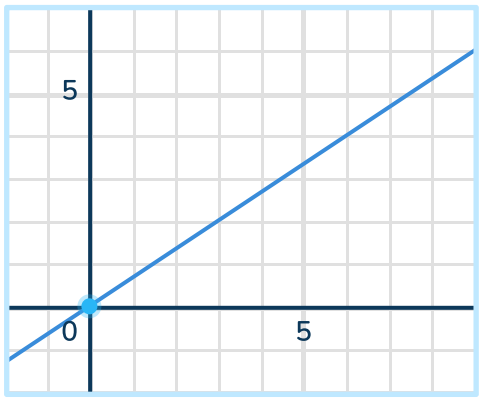


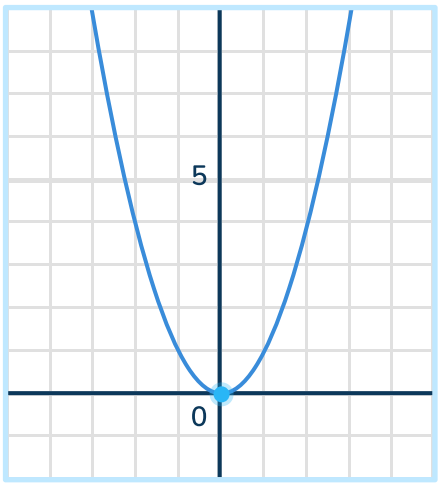


7 Circle the graph that represents a linear relationship.









8 Graph the equation $y = 2x$

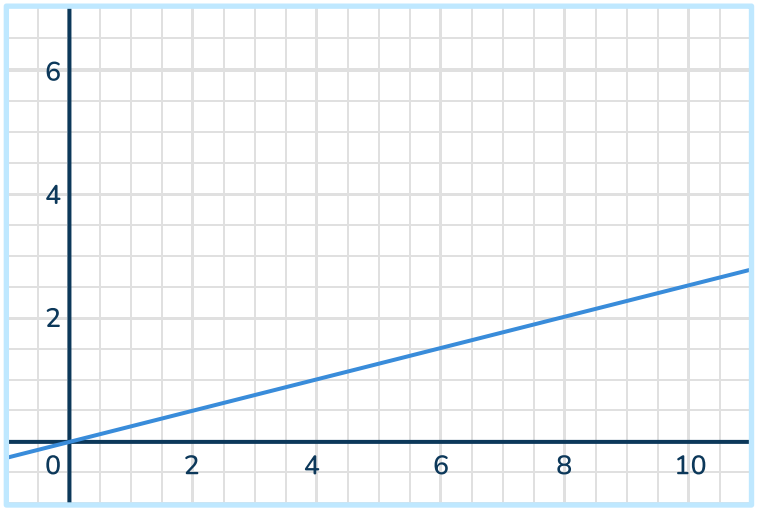
9 Graph the equation $y = -x + 3$

10 Graph the equation $y = 5$

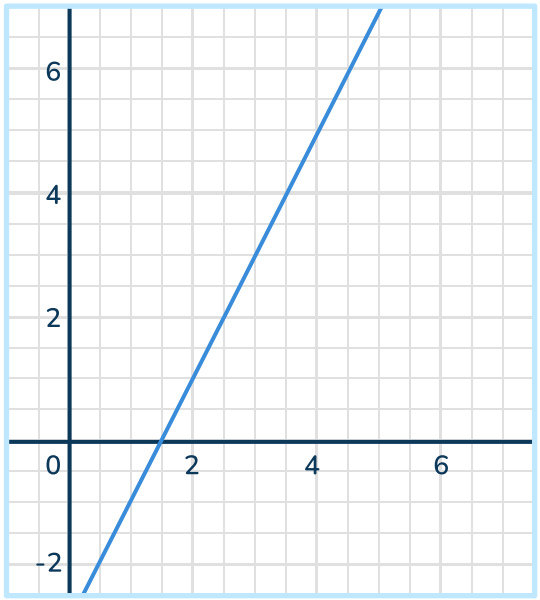
Applied Questions

11 Look at the two graphs below.
Explain which graph, graph A or graph B, is proportional and why.

Graph A

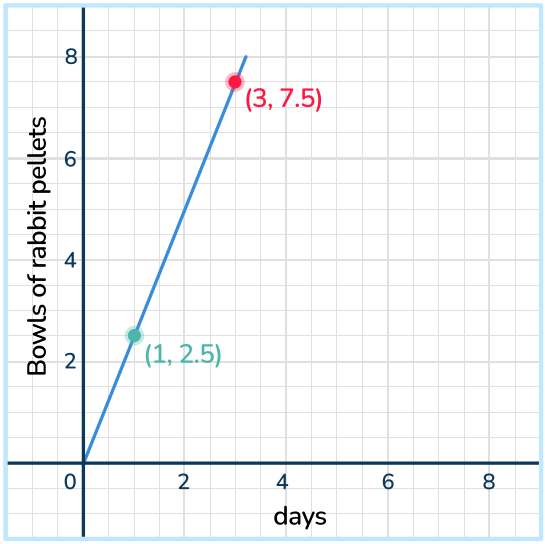


Graph B



Answer

12 Penny has a pet rabbit named Blu. The graph represents the number of bowls of rabbit pellets Blu eats.



a) What does the ordered pair (1, 2.5) mean in this case?

Answer

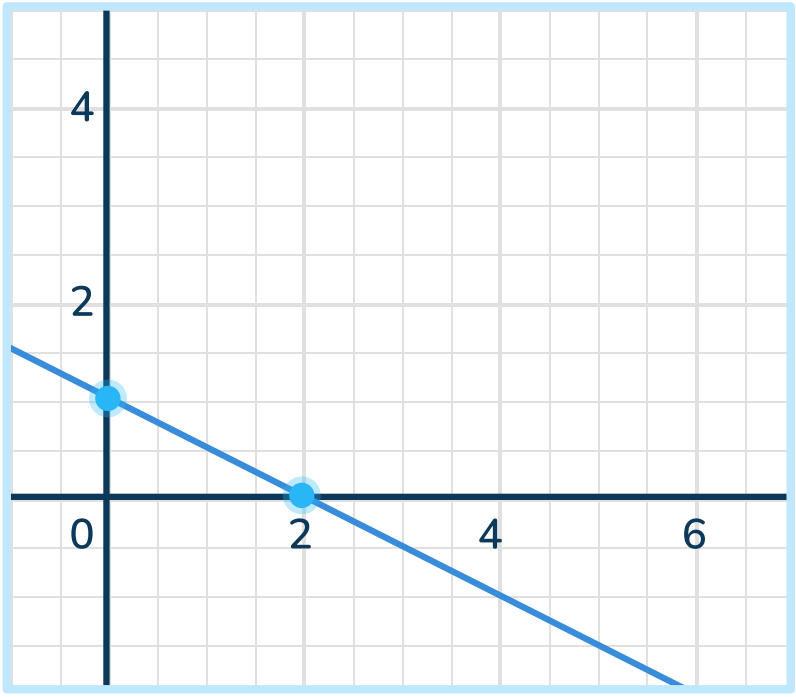
b) Does the graph represent a proportional relationship?

Answer

13 If x and y vary directly and $x = 6$ and $y = -2$, write the equation that represents the direct variation and then graph it.

Answer

14 Write the equation of the line represented in the graph below.



Answer

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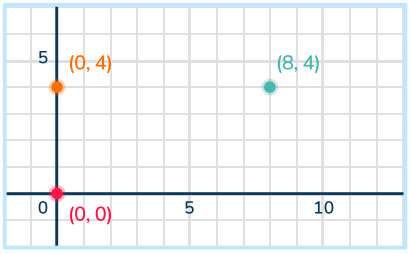
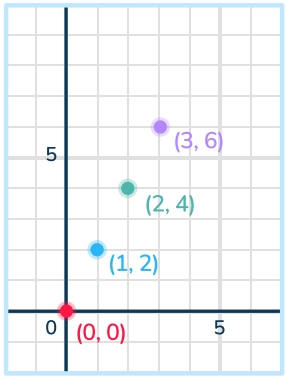
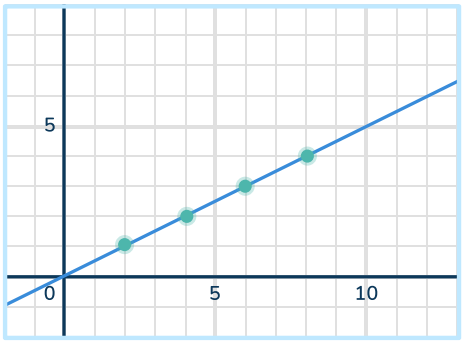
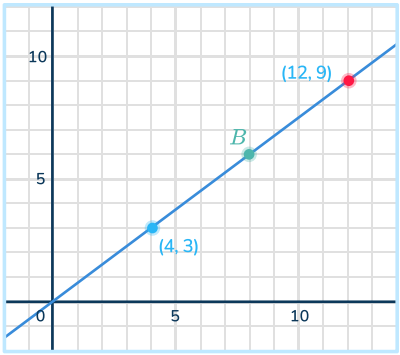
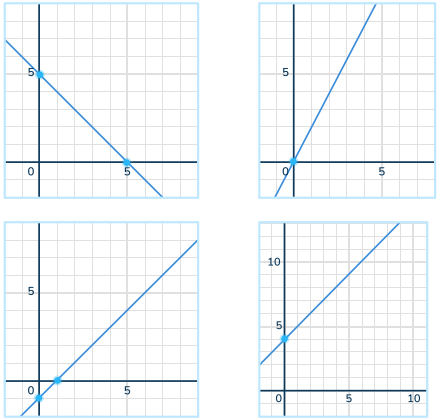
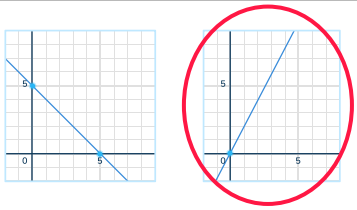
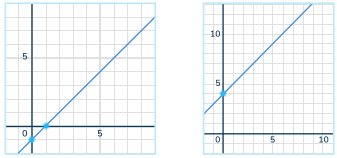
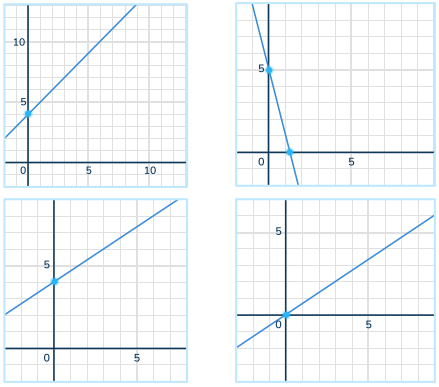
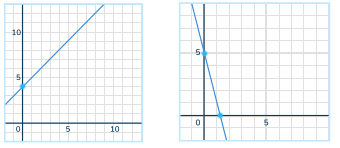
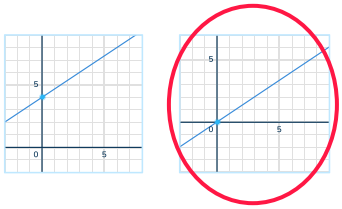
15 Create two linear equations in the form of $y = mx + b$ where one represents a proportional relationship and the second one does not.

Answer

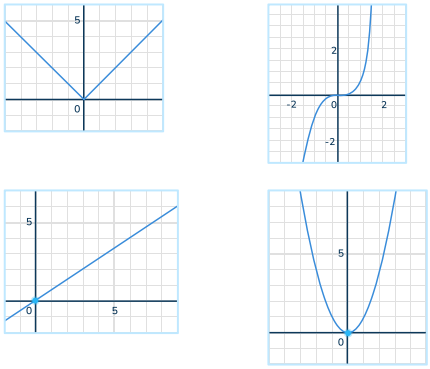
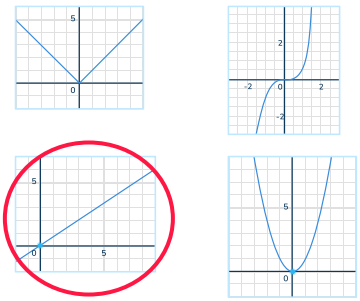
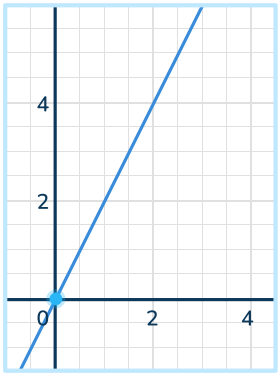
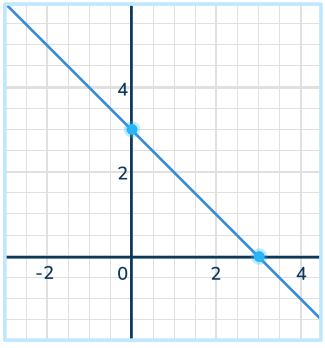
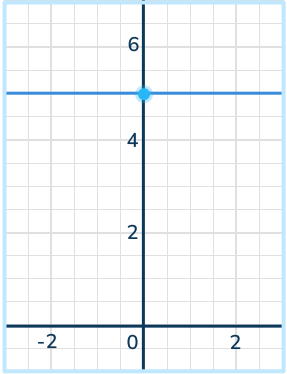
Answers

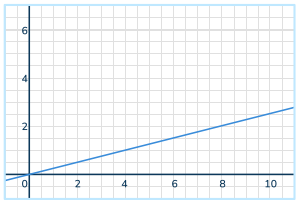
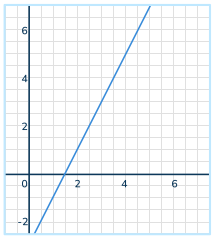
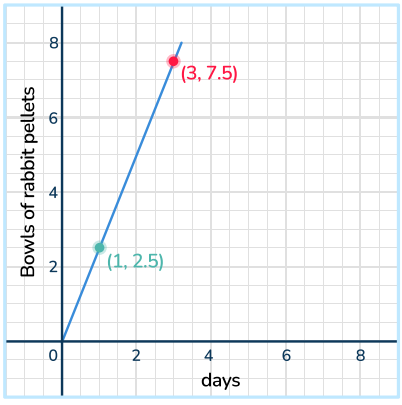
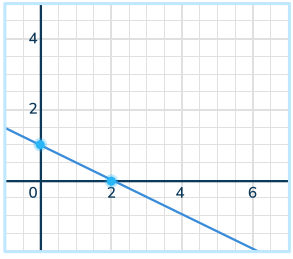
Question number	Question	Answers	Standard
1	Where can you plot a fourth ordered pair to make a rectangle? 	The fourth ordered pair should be (8, 0)	6.G.A.3
2	Describe if the points on the graph represent a proportional relationship. 	The points on the graph represent a proportional relationship because the points are in the same ratio, (1, 2) $\rightarrow \frac{y}{x} = \frac{2}{1}$ (2, 4) $\rightarrow \frac{y}{x} = \frac{4}{2} = \frac{2}{1}$ (3, 6) $\rightarrow \frac{y}{x} = \frac{6}{3} = \frac{2}{1}$	7.RP.A.2.d
3	What is the constant of proportionality for the graph below? 	The constant of proportionality is $\frac{1}{2}$	7.RP.A.2.b

Types of Graphs Worksheet | Grades 6 to 8 | Answers

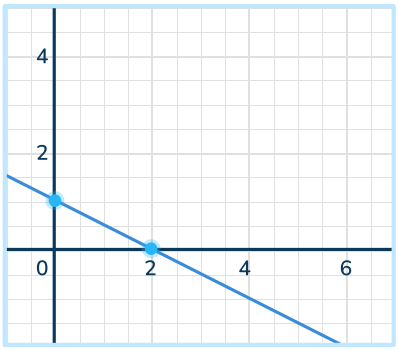
Question number	Question	Answers	Standard
4	What is the ordered pair of point B? 	The ordered pair of point B is (8, 6)	7.RP.A.2.b
5	Circle the graph that represents a proportional relationship. 	 	7.RP.A.2.b 8.EE.B.5
6	Circle the graph that represents a direct variation. 	 	8.EE.B.5

Types of Graphs Worksheet | Grades 6 to 8 | Answers

Question number	Question	Answers	Standard
7	Circle the graph that represents a linear relationship. 		8.EE.B.5 HSF-IF.C.7
8	Graph the equation $y = 2x$		8.EE.B.5 HSF-IF.C.7
9	Graph the equation $y = -x + 3$		8.EE.B.5 HSF-IF.C.7
10	Graph the equation $y = 5$		8.EE.B.5 HSF-IF.C.7

Question number	Question	Answers	Standard
11	Look at the two graphs below. Explain which graph, graph A or graph B, is proportional and why. Graph A  Graph B 	Graph A represents a proportional relationship because the points (4, 1) and (8, 2) are points on the graph. The points are proportional meaning they make equal ratios. (4, 1) $\rightarrow \frac{y}{x} = \frac{4}{1}$ (8, 2) $\rightarrow \frac{y}{x} = \frac{8}{2}$ $\frac{4}{1} = \frac{8}{2}$	7.RP.A.2.b
12	Penny has a pet rabbit named Blu. The graph represents the number of bowls of rabbit pellets Blu eats.  A) What does the ordered pair (1, 2.5) mean in this case? B) Does the graph represent a proportional relationship?	A) (1, 2.5) means in 1 day, Blu eats 2.5 bowls of rabbit pellets B) Yes, it does represent a proportional relationship because Blu eats 2.5 bowls of pellets in 1 day and 7.5 bowls of pellets in 3 days which is a proportional relationship. $\frac{days}{bowls} = \frac{1}{2.5} = \frac{3}{7.5}$	7.RP.A.2.b
13	If x and y vary directly and $x = 6$ and $y = -2$, write the equation that represents the direct variation and then graph it.	$y = -\frac{1}{3}x$ 	8.EE.B.5

Types of Graphs Worksheet | Grades 6 to 8 | Answers

Question number	Question	Answers	Standard
14	Write the equation of the line represented in the graph below. 	$y = -\frac{1}{2}x + 1$	8.EE.B.5 HSF-IF.C.7
15	Create two linear equations in the form of $y = mx + b$ where one represents a proportional relationship and the second one does not.	Answers vary: $y = 2x$ (proportional relationship) $y = -2x + 1$ (not proportional relationship)	8.EE.B.5 HSF-IF.C.7

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