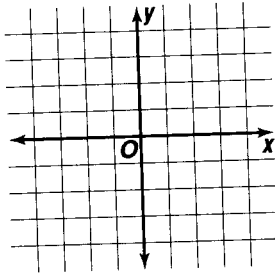


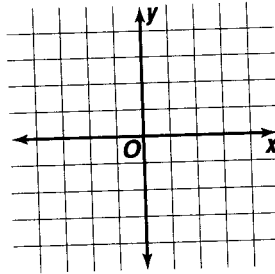
**Direct Variation**

Determine whether each equation is a direct variation. Verify the answer with a graph.

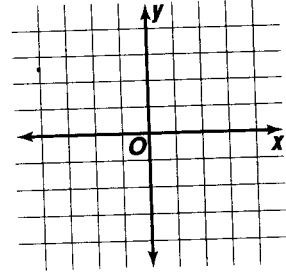
1.  $y = 3x$



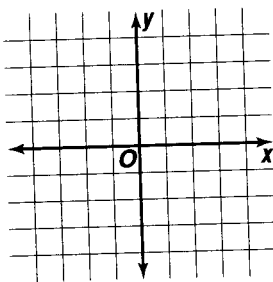
2.  $y = x + 2$



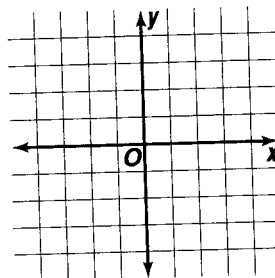
3.  $y = -4x$



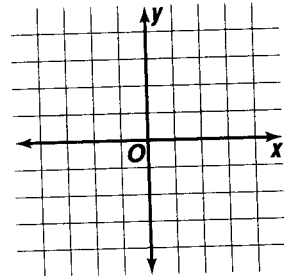
4.  $y = -x - 1$



5.  $y = 2$



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



Solve. Assume that  $y$  varies directly as  $x$ .

7. If  $y = 14$  when  $x = 5$ ,  
find  $x$  when  $y = 28$ .

8. Find  $y$  when  $x = 5$  if  
 $y = -6$  when  $x = 2$ .

9. If  $x = 9$  when  $y = 18$ ,  
find  $x$  when  $y = 24$ .

10. If  $y = 36$  when  $x = -6$ ,  
find  $x$  when  $y = 54$ .

11. Find  $y$  when  $x = 3$  if  
 $y = -3$  when  $x = 6$ .

12. Find  $y$  when  $x = 8$  if  
 $y = 4$  when  $x = 5$ .

Solve by using direct variation.

13. If there are 4 quarts in a gallon, how many quarts are in 4.5 gallons?

14. How many feet are in 62.4 inches if there are 12 inches in a foot?

15. If there are 2 cups in a pint, how many cups are in 7.2 pints?