

Linear Functions REVIEW

Name:

Date:

Period:

Lesson 1: Functions

Determine whether each relation is a function. Explain.

1. $(0, 8), (2, 4), (7, 7), (0, 9)$

2. $(3, 1), (1, 3), (4, 5), (5, 4)$

If $f(x) = 2x + 7$, find each function value.

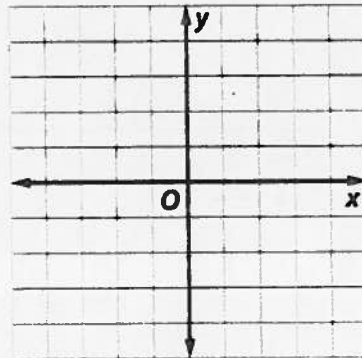
3. $f(5)$

4. $f(-4)$

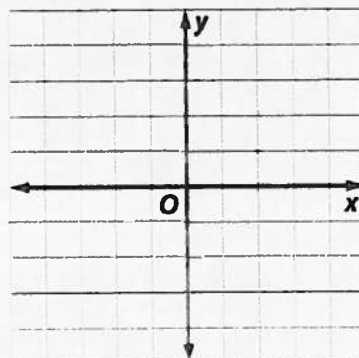
Lesson 2: Representing Linear Functions

Find four solutions of each function. Write the solutions as ordered pairs. Use the ordered pairs to graph the functions.

5. $y = -2x - 1$



6. $y - 3x = 2$



Lesson 3: Constant Rate of Change and Slope

Find the constant rate of change between the quantities in each table.

7.

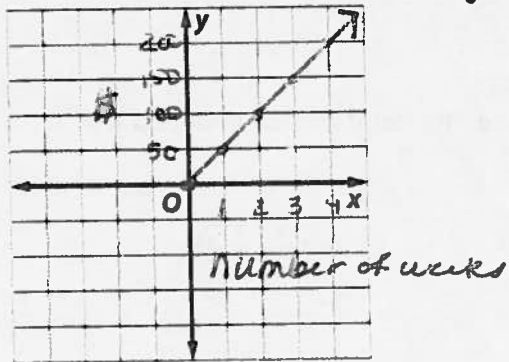
Items	3	6	9	12
Cost	4	8	12	16

8.

Time	5	10	15	25
Distance	10	20	30	50

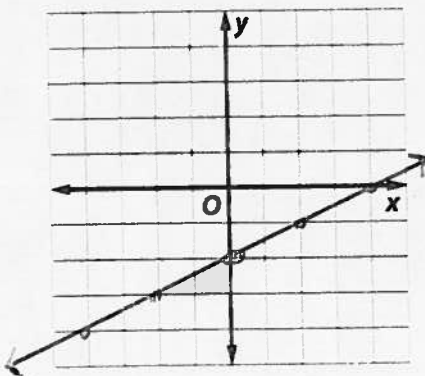
Find the constant rate of change for the linear function and interpret its meaning.

9. *Money Earned Babysitting*

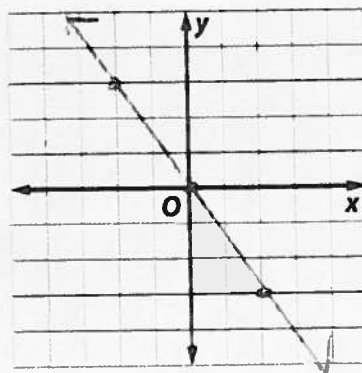


Find the slope of each line.

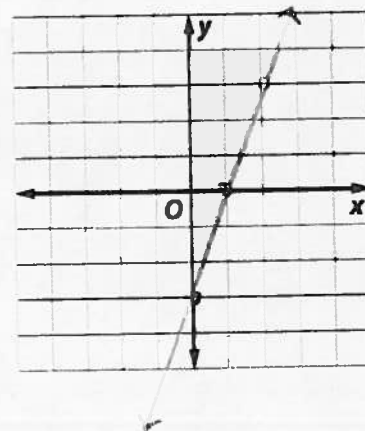
10.



11.



12.



Find the slope of the line that passes through each pair of points.

13. $(0, 1), (6, 4)$

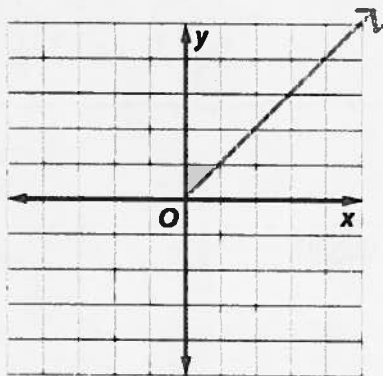
14. $(-3, 7), (5, -4)$

15. $(7, 0), (5, 7)$

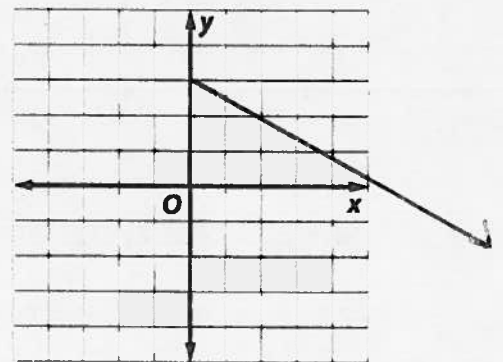
Lesson 4: Direct Variation

Determine if the relationship is a direct variation. Explain.

16.



17.

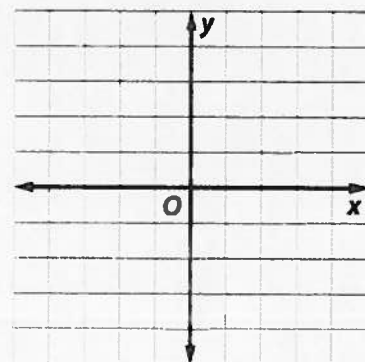
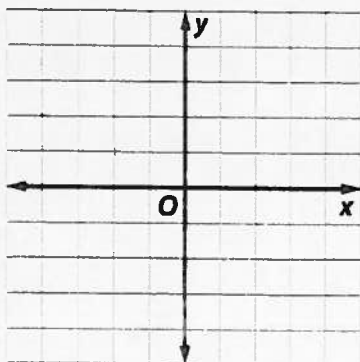


Lesson 5: Slope-Intercept Form

State the slope and the y-intercept. Graph each equation.

17. $y = -1/2 x + 5$

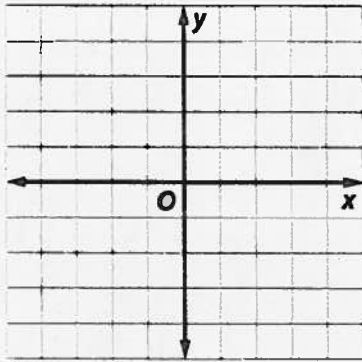
18. $y = x - 3$



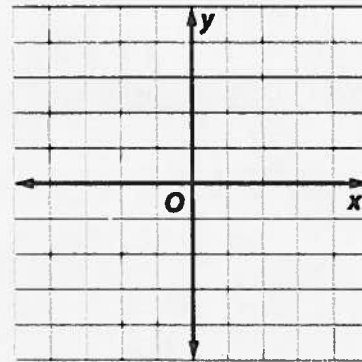
Lesson 6: Solve Systems of Equations by Graphing

Solve each system of equations by graphing.

19. $y = -x + 1$
 $y = 4x - 4$



20. $y = 3x$
 $y = x + 4$



Lesson 7: Solve Systems of Equations Algebraically

Solve each system algebraically.

21. $y = 4$
 $y = -3x - 11$

22. $8y = 6 - 2x$
 $x = 3 - 4y$

23. $7x - 3y = 4$
 $7x = -2 + 3y$

24. $2x + y = 3$
 $y = -3x + 7$