Name: _____ Date: _____ Period: _____

3.2 Graphing Linear Equations CYU

CONCEPTS	BASIC	INTERMEDIATE	ADVANCED
Standard form Ax + By = C	1 - 8		
Evaluating equations	9 – 12	16, 17	16, 17
Graphing linear equations	9 - 12	13 - 15	
Describing Transformations		13 – 15	

Determine whether each equation is a linear equation in two variables.

1. $-x = 3y + 10$

2. $y = x - 15$

3. $x = y$

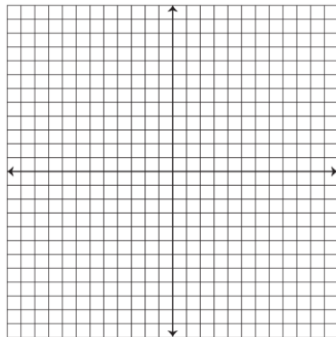4. $x^2 + 2y = 0$

5. $x = y^3$

6. $0.01x - 0.2y = 8.8$

7. $y = -1$

8. $x = 25$

For each equation, find three ordered pair solutions by completing the table. Then use the ordered pairs to graph the equation.
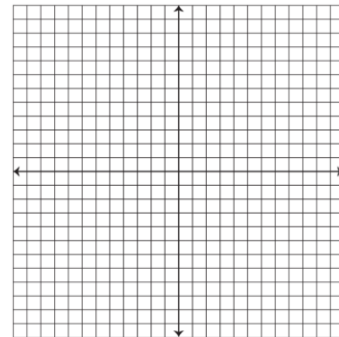
9. $x - y = 6$
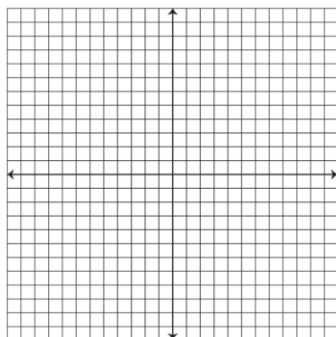
x	y
	0
4	
	-1

10. $y = -4x$
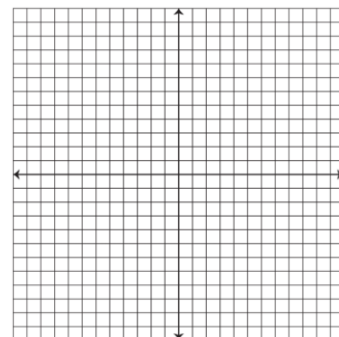
x	y
1	
0	
-1	

11. $y = \frac{1}{3}x$
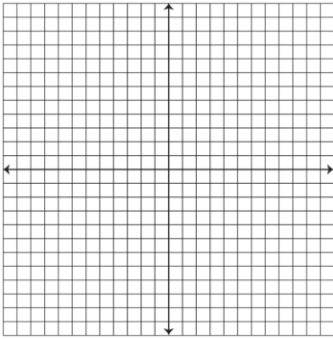
x	y
0	
6	
-3	

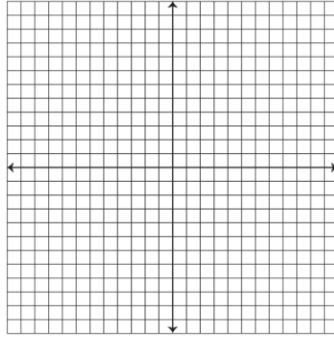12. $y = -4x + 3$

x	y
0	
1	
2	

Graph each pair of linear equations on the same set of axes. Describe, in words, how the graphs are similar AND how they are different.
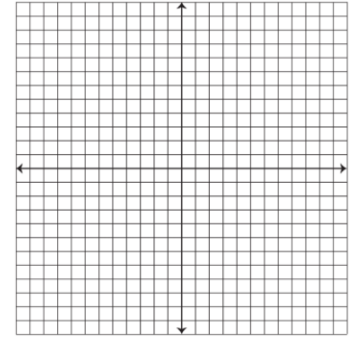
13. y = 5x & y = 5x + 4

14. y = - 2x & y = - 2x – 3

15. $y = \frac{1}{2}x$ & $y = \frac{1}{2}x + 2$

Solve.

16. Jogging is one of the few sports that has been consistently increasing over the past few years. The number of people jogging (in millions) from the years 2000 to 2009 is given by the equation y = x + 23, where x is the number of years after 2000.

   a. Use this equation to complete the ordered pair (8,   ).

   b. Write a sentence explaining the meaning of the answer to part (a).

   c. If this trend continues, how many joggers will there be in 2017?

17. The revenue y (in billions of dollars) for Home Depot stores during the years 2010 through 2014 is given by the equation y = 3.2x + 65.2, where x is the number of years after 2010.

   a. Use this equation to complete the ordered pair (3,   ).

   b. Write a sentence explaining the meaning of the answer to part (a).

   c. If this trend continues, predict the revenue for Home Depot stores for the year 2018.

CYU Reflection: *How far can you go: basic, intermediate, or advanced?*
Rate your mastery level!
How confident are you with the skills this CYU covered? Circle the score you would give yourself.

| 1   2 | 3   4   5 | 6   7 | 8 |
| Basic | Intermediate | Advanced | Solved ALL! |