

NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

**Unit 5 Review Graphing Linear Equations**

**Tables, Equations, and Graphs**

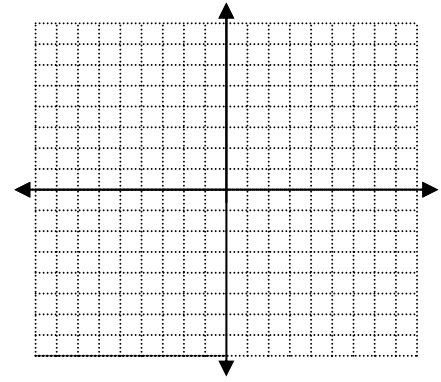
1. Given the table. Write the equation. Graph it!

$x$	$y$
0	-2
1	1
2	4
3	7

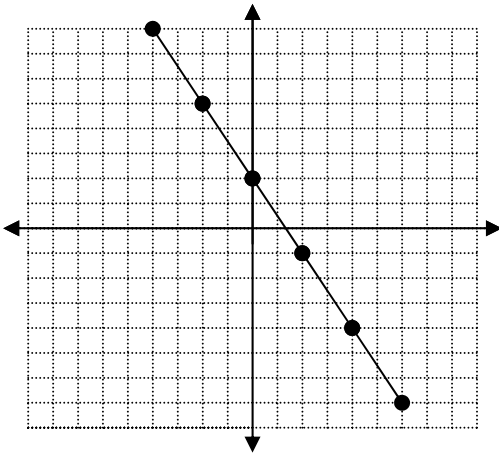
Initial value (start) = \_\_\_\_\_

Rate of Change = \_\_\_\_\_

$y =$  \_\_\_\_\_



2. Given the graph. Write the equation.



slope = \_\_\_\_\_

y-intercept = \_\_\_\_\_

$y =$  \_\_\_\_\_

3. Given the equation. Fill in the table.

$y = 5x - 12$

$x$	$y$
-2	
-1	
0	
1	
2	
3	
20	

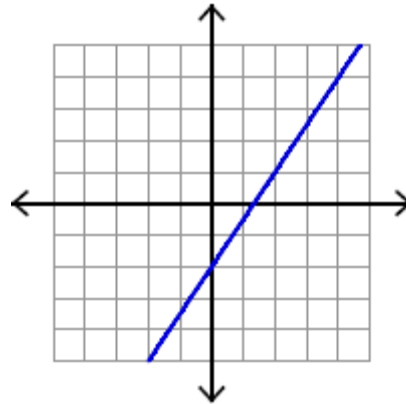
**SLOPE (RATE OF CHANGE)**

4. Find the slope

Time (seconds)	Profit (dollars)
6	21
9	25
12	29

$m =$

5. Find the slope, x-intercept, and y-intercept.



$m =$

$b =$

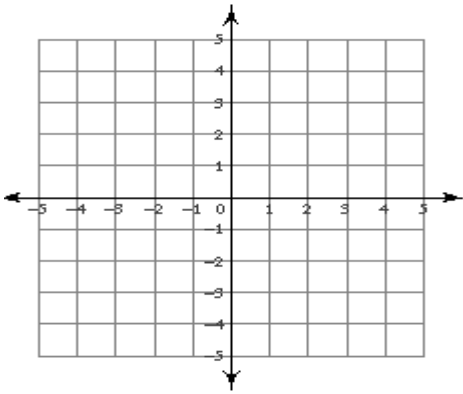
6. Find the slope of the line that contains the points: (-12, 8) and (-21, -20)

7. Bob has saved 32 gummi bears. His mom gives him 3 gummis every 2 days.

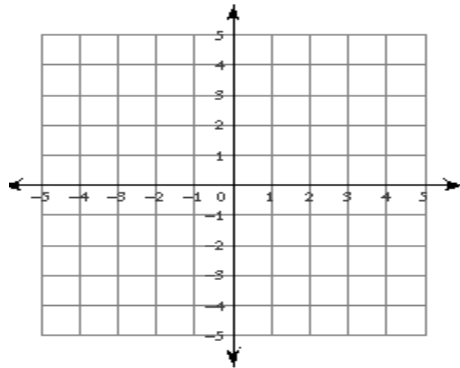
What is the rate of change?

$y = mx + b$ . Graph the following. Determine the point where the lines intersect!

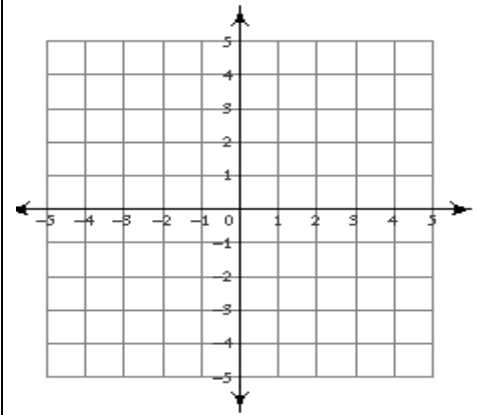
$y = -x - 1$   
 $y = x - 3$



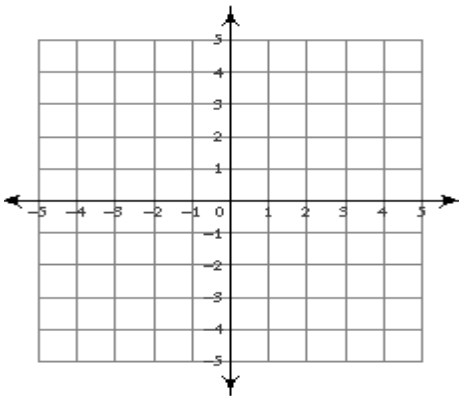
$y = \frac{1}{2}x - 1$   
 $y = -\frac{3}{4}x + 4$



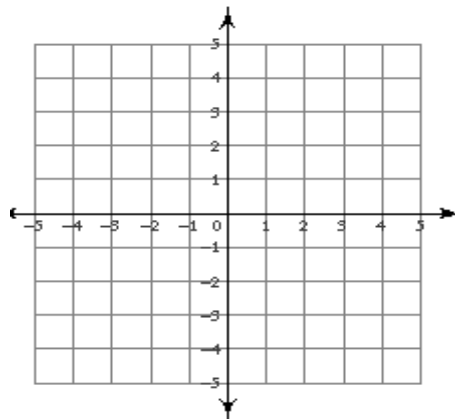
$y = -x + 1$   
 $y = 4$



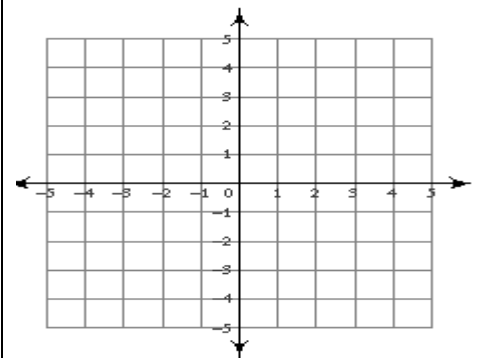
$y = -\frac{1}{2}x + 4$   
 $x = 4$



$y = -4x - 2$   
 $y = -x + 1$



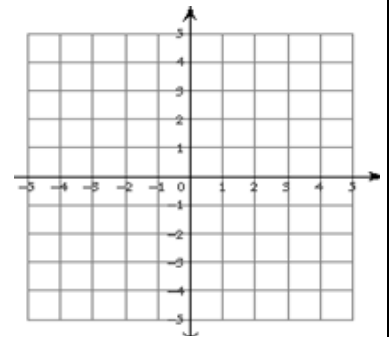
$y = \frac{1}{2}x + 3$   
 $y = -\frac{5}{2}x - 3$



8. Is the point  $(-3, 5)$  a solution to  $y = \frac{2}{3}x + 7$ ?  
 SHOW WORK!

9. Graph a line with

$x$ -intercept =  $(-5, 0)$   
 $y$ -intercept =  $(0, 3)$



10. Given  $f(x) = \frac{3}{4}x - 6$

Find  $f(8) =$

Find  $x$  so that  $f(x) = 18$

11. Given  $h(x) = \frac{2}{3}x - 4$  fill in the table.

$x$	$h(x)$
12	
-3	
	24

12. Solve for  $y$  then state the slope of the line.  $4x - 3y = 15$

$m =$

## Application

### Tony

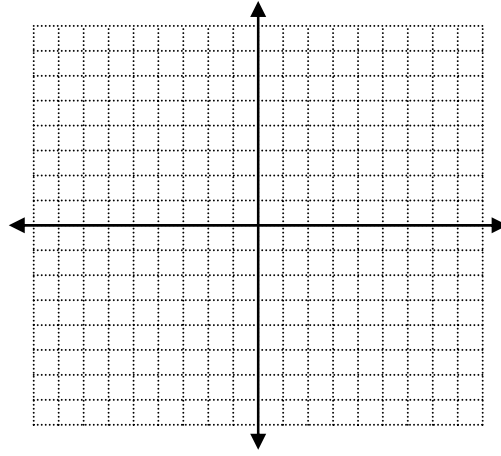
Tony has 2 dance moves down perfect, the robot and the centipede. Every week he learns 3 new dance moves.

1. What is the  $y$ -intercept?
2. What does the  $y$ -intercept mean?
3. What is the rate of change?
4. Write the equation to model this.
5. Graph this equation below.
6. How many dances move will Tony have in 5 weeks? **SHOW STEPS TO SOLVE THIS!**

### Toni

Toni doesn't know any dance moves. She learns 5 moves every 2 weeks.

7. What is the initial value (start)? Label it.
8. What is the slope.
9. What does the slope mean?  
(AKA use your slope in a sentence with labels)
10. Write the equation to model this.
11. Graph this equation below.
12. When will Toni have 20 dance moves?  
**SHOW STEPS TO SOLVE THIS!**



### Use the graph to answer the following:

Mr. Brust buys a box of candy canes. He eats them continuously. The graph models this situation.

13. What is the slope of the line?
14. What does the slope mean?  
(AKA use your slope in a sentence with labels)
15. What is the  $y$ -intercept?
16. What does the  $y$ -intercept mean in this situation?
17. What is the  $x$ -intercept?
18. What does the  $x$ -intercept mean in this situation?

