ALGEBRA
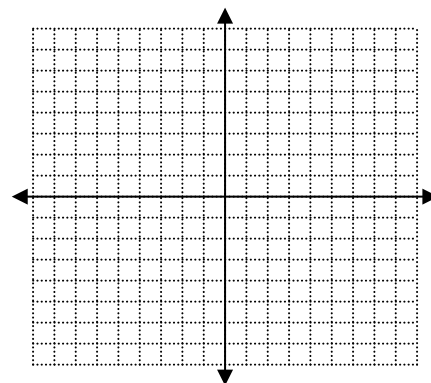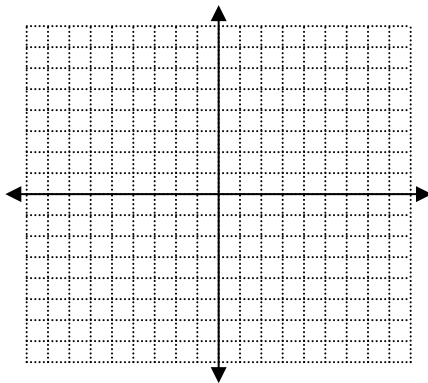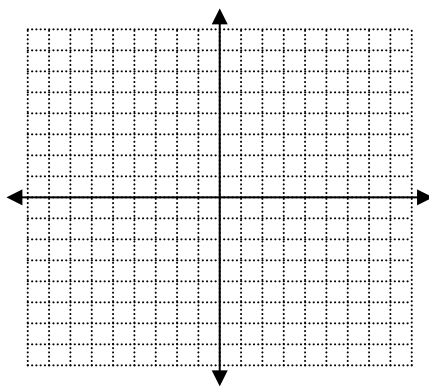
Write your
questions here!

SLOPE INTERCEPT FORM

GRAPH

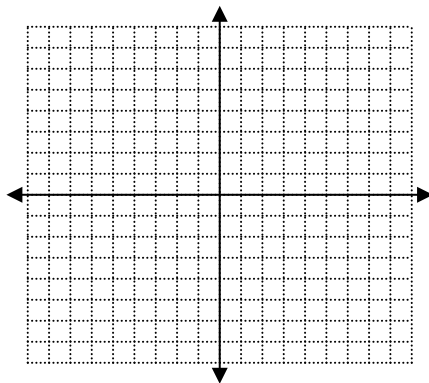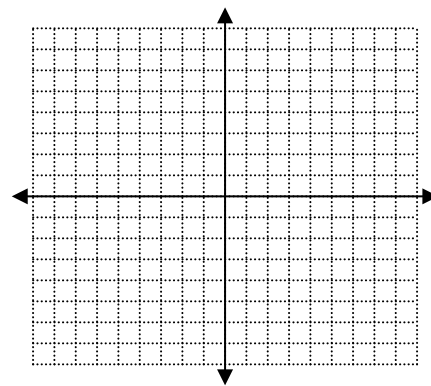$$y = \frac{1}{3}x - 4$$

$$y = 2x - 3$$
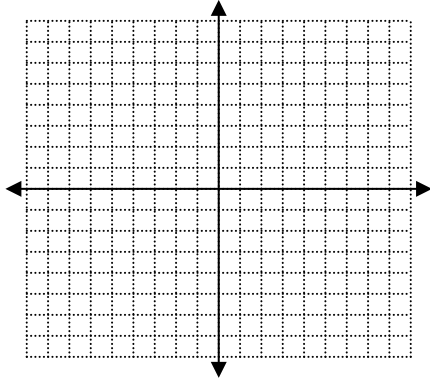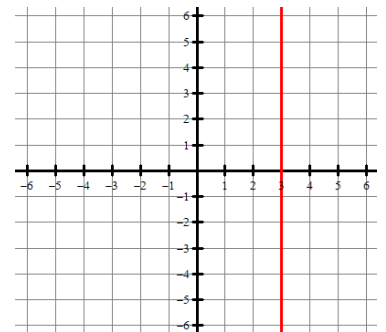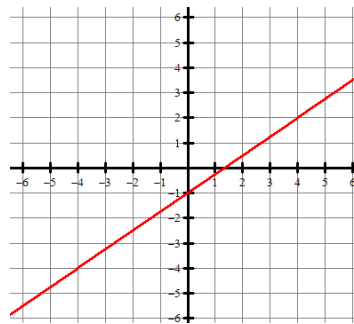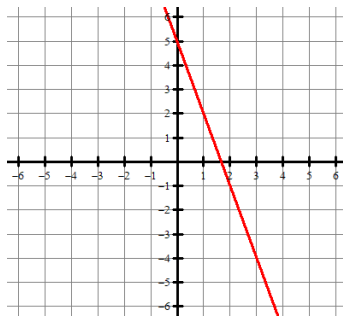
$$y = -\frac{1}{2}x - 1$$
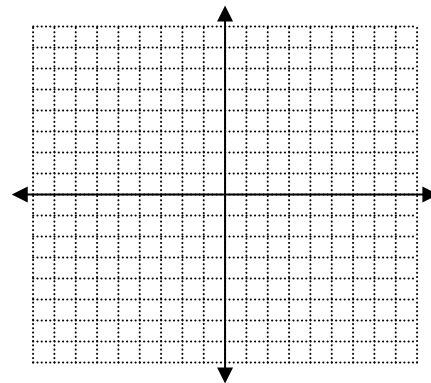
SPECIAL SLOPES
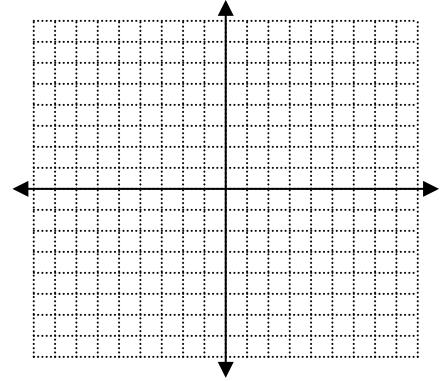
Write the equation of the line.

PUTTING IT ALL TOGETHER

VERBAL: Bob has 3 cakes. He bakes 5 cakes every 2 hours.
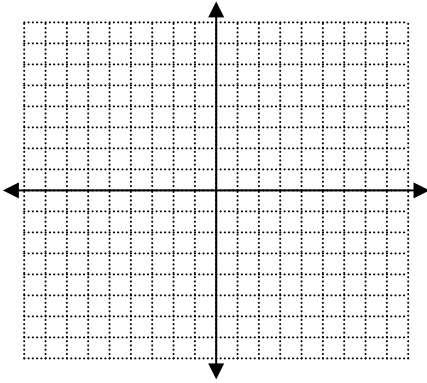
EQUATION:

TABLE:

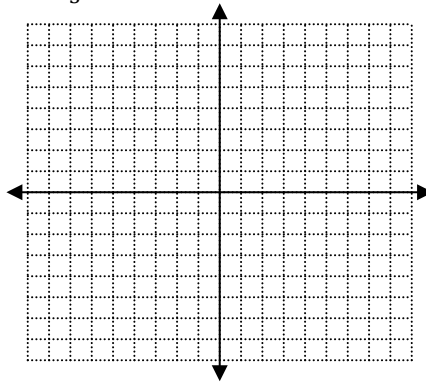|	
0	
4	
-6	
	23

GRAPH:
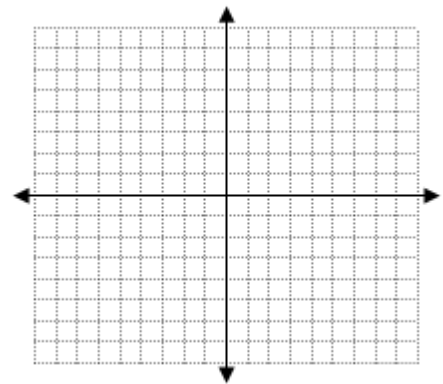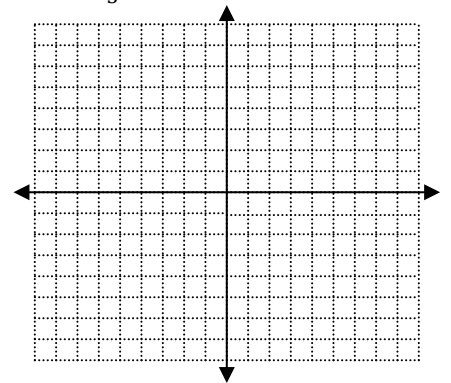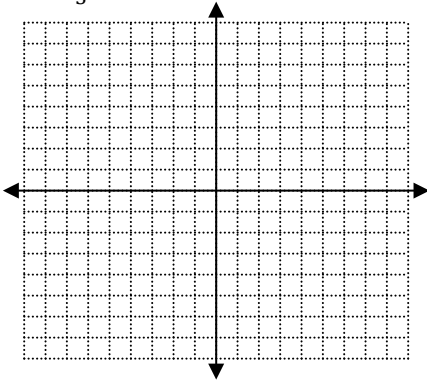
Graph the following lines.
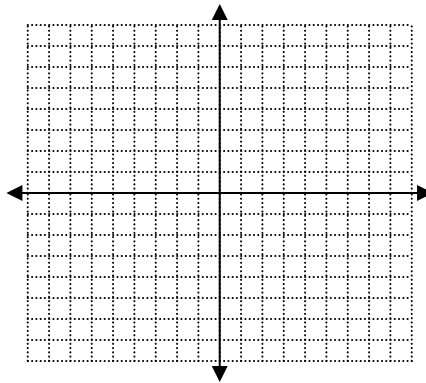
1. $y = 2x + 1$
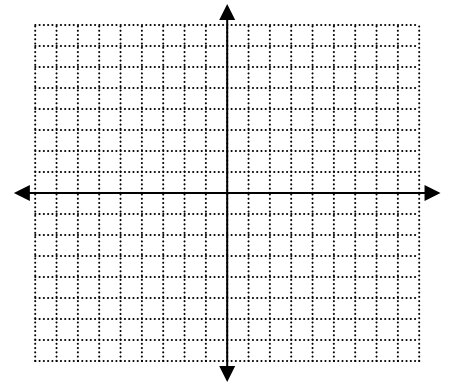
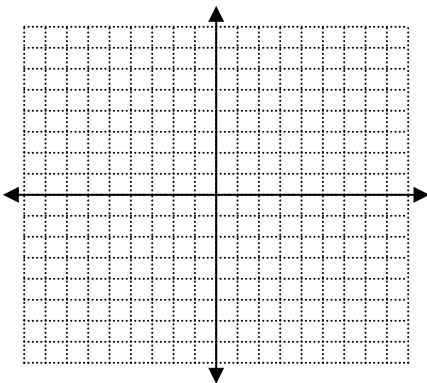2. $y = \frac{1}{3}x - 4$

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

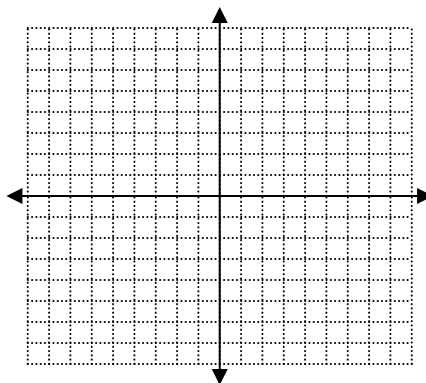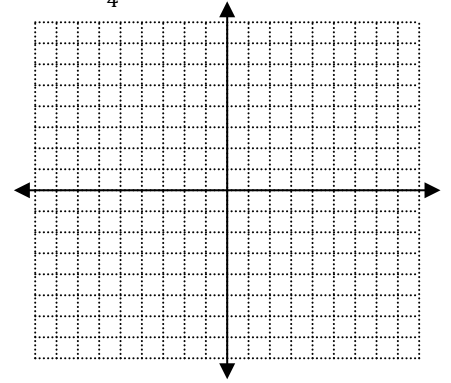4. $y = \frac{1}{5}x - 3$

5. $y = x + 3$

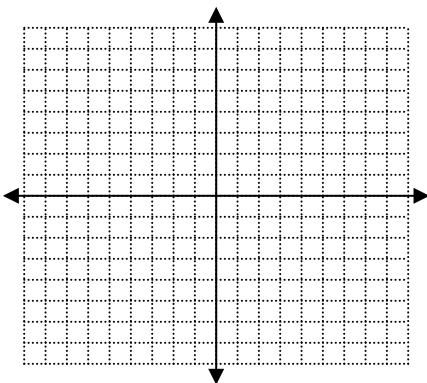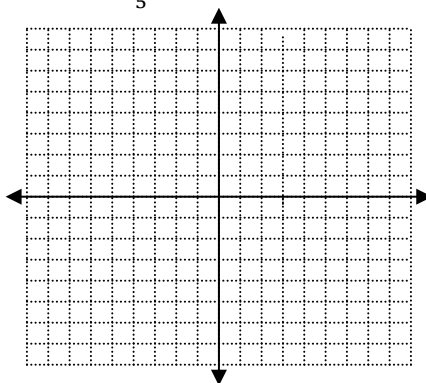6. $y = 4$

7. $y = 3x + 7$

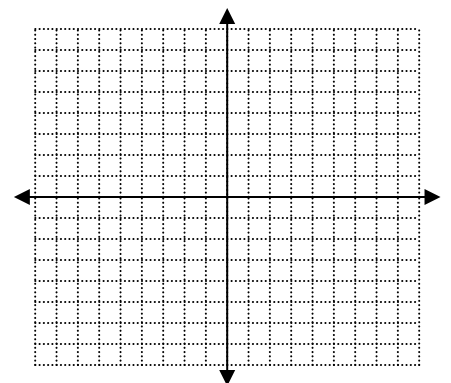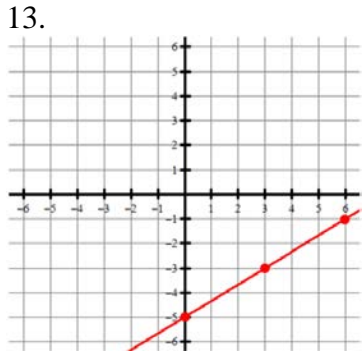8. $y = 4 - 2x$

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

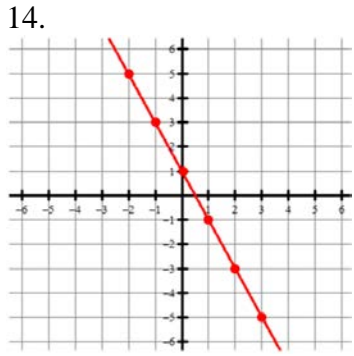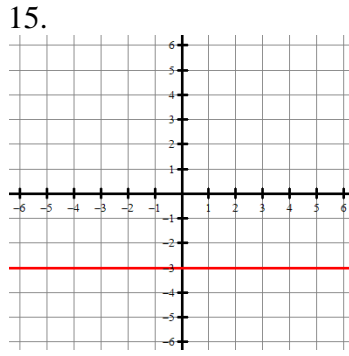10. $x = -5$

11. $y = 3 + \frac{2}{5}x$

12. $y = 2x$

Write the equation of the line graphed below.

13.

$y =$ _____

14.

$y =$ _____

15.

_____

16.

$y =$ _____
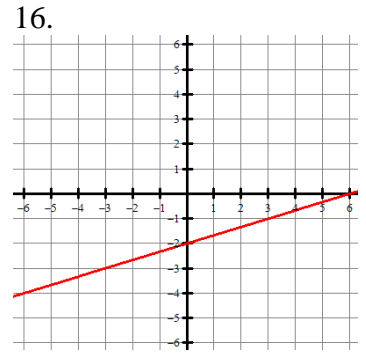
Use the equation to complete the table and graph the line.

17. $y = \frac{1}{2}x - 3$

x	y
0	
4	
−6	
	3
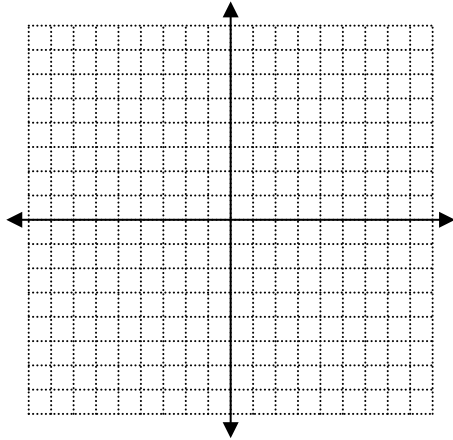
18. $y = -3x + 7$

x	y
1	
0	
4	
	−8
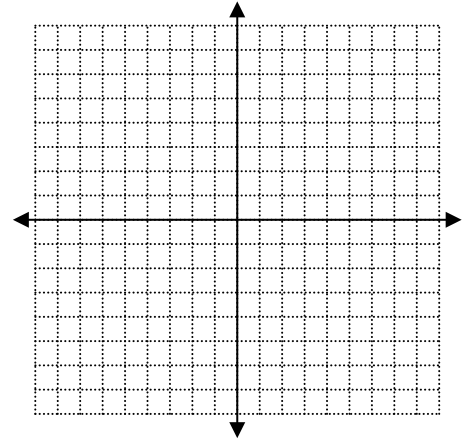
Use the graph to complete the table and write the equation.

19. $y =$ _____

x	y
3	
0	
	−1
−6	

20. $y =$ _____
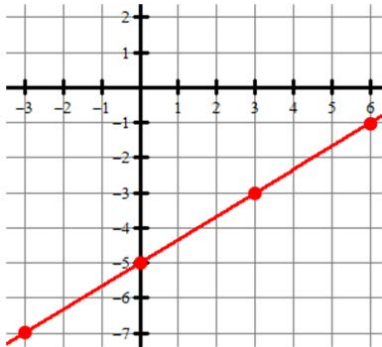
x	y
1	
−2	
0	
	−4
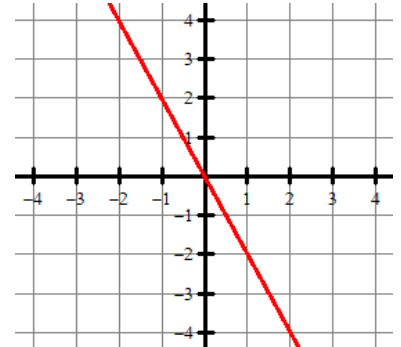
Use the table to complete the graph and write the equation.

21. $y =$ _____

x	y
−3	0
0	2
6	6
−9	−4

22. _____
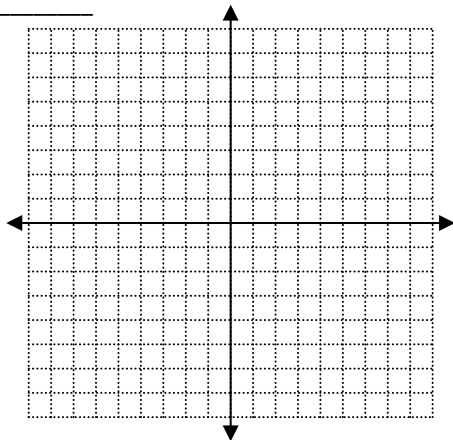
x	y
4	−2
4	4
4	−5
4	3
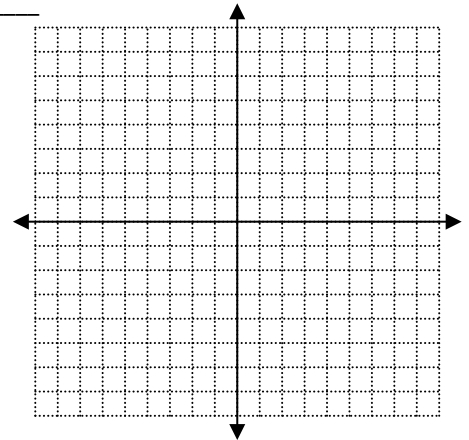
1. Graph the line $y = -\frac{2}{3}x - 1$
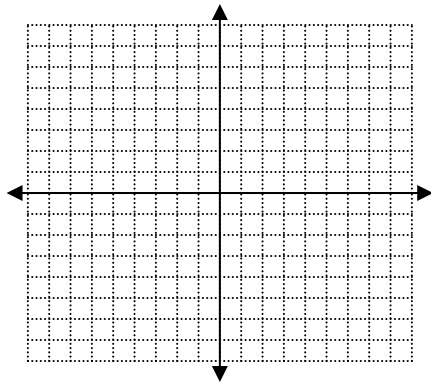
2. Write the equation of the line graphed below.

3. **MULTIPLE CHOICE** Which of the following equations represents the line shown below where t stands for time in weeks and m stands for money in dollars?

   (A) $m = \frac{1}{2}t + 2$

   (B) $m = 2t + 2$

   (C) $m = 5t + 20$

   (D) $m = \frac{1}{2}t + 20$

   (E) $m = 2t + 20$

4. **FREE RESPONSE** Mr. Kelly has a super-sized bag of AlgeGummy Bears. He sits down to watch Riverdale with the bag which has 3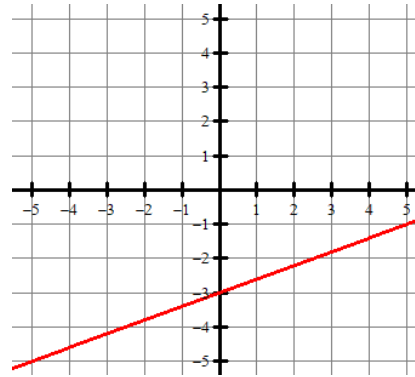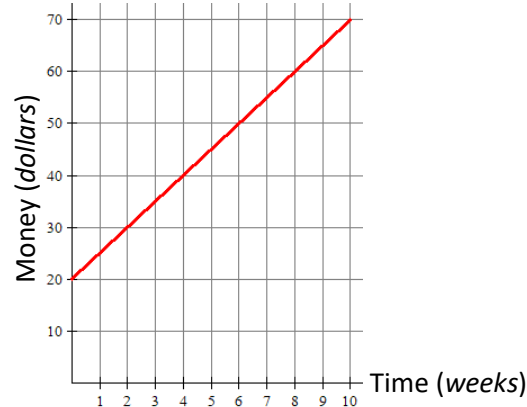00 AlgeGummies in it. Mr. Kelly eats 20 AlgeGummies every 3 minutes while he watches the antics of his favorite character Jughead.

   a) Write an equation to model the number of AlgeGummies in his super-sized bag. Define your variables.

   b) Graph your equation. Label both axes.

   c) How long will it take for his bag to have 160 AlgeGummies left?

   d) How many AlgeGummies will be in the bag after 4 minutes?
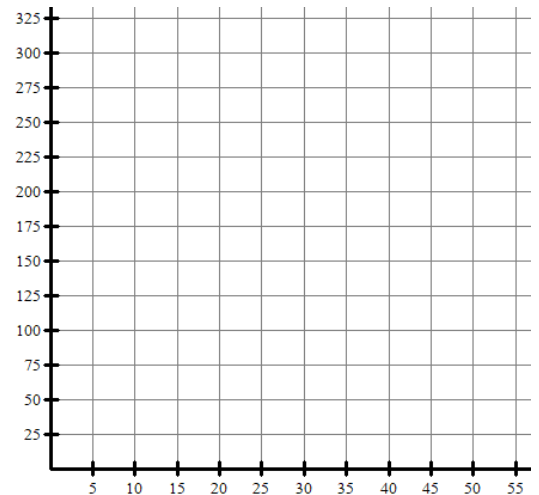
   e) What is a value for the number of AlgeGummies that you could put into your equation that wouldn't make sense for this situation? Why does it not make sense in this situation?