1A Ready, Set, Go Name _____ Per: _____

NO WORK, NO CREDIT. PENCIL ONLY.

1. The x-intercept is where the line crosses the _____. This is where ____ = 0.
2. The y-intercept is where the line crosses the _____. This is where ____ = 0.
3. $y = mx + b$. What does the m represent? _____. What does the b represent? _____

4. a. Explain how you can find the slope of an equation. _____

   How about the x and y intercepts from an equation. _____

   b. Explain how you can calculate slope of a table. _____

   How about the x and y intercepts from a table. _____

   c. Explain how you can calculate slope of a graph. _____

   How about the x and y intercepts from a graph. _____

5.

x	*y*
1	0
3	80
5	160

a. Find the slope/rate of change for the table to the left. _____

b. What is the y-intercept for the table? _____

c. Write the equation for the line: _____

d. What is the x-intercept for the table?_____

6.

x	*y*
-1	150
0	300
1	450

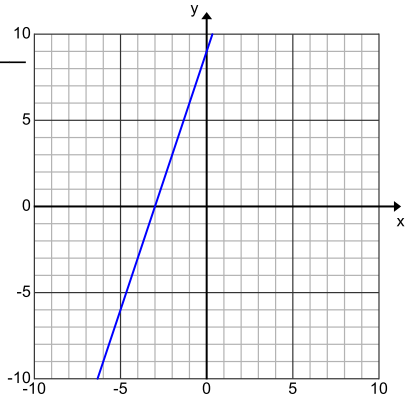
a. Find the slope/rate of change for the table to the left. _____

b. What is the y-intercept for the table? _____

c. Write the equation for the line: _____

Extra Credit: Find the x-intercept for the table. _____

7. Find the **slope**, **x-intercept**, **y-intercept**, and **equation** for the following graph. Don't forget to write the intercepts as an **ordered pair**.



   a. Slope _____
   b. What is the x-intercept? _____
   c. What is the y-intercept? _____
   d. Write the equation for the line _____

Find the **slope**, **y-intercept** and x-intercept (EC) for the following equations.

8. $y = 6x - 24$

   Slope: _____ y-intercept: _____

   E.C. x-intercept: _____

9. $-2x + y = 12$

   Slope: _____ y-intercept: _____

   E.C. x-intercept: _____

Find the **slope**, **y-intercept** and **equation** of the line that passes through the given points.

10. (4, 6) and (10, –12)

    Slope: _____

    y-intercept: _____

    Equation: _____

    E.C. x-intercept: _____

11. (–3, 5) and (4, 19)

    Slope: _____

    y-intercept: _____

    Equation: _____

    E.C. x-intercept: _____

12. The student council provided treats and paid for students to attend a ski party for Christmas. The following shows how much they spent for various numbers of students at the party. Complete the table.

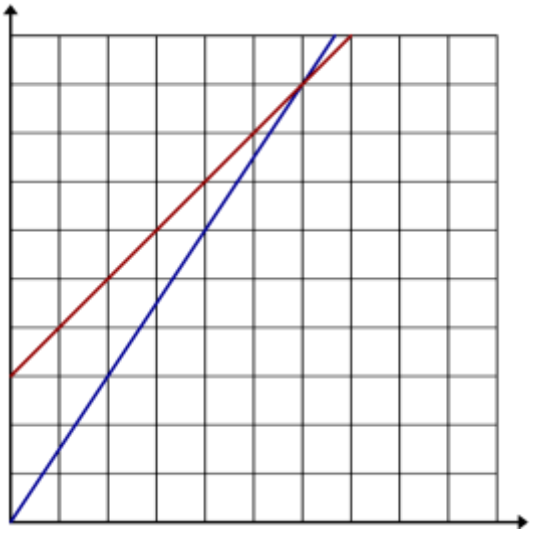
# of students	Pattern	Resort Cost	Short Hand
3		$180	
4		$230	
n		$$	

a. Write the above given data as coordinate points. _____ _____
b. How much did the treats cost? _____ . Explain_____
c. Is the relationship between the number of people and total cost linear? _____
d. How do you know? _____
e. What is the cost per student? _____. Explain_____

E.C. **Explain** how to use your equation to find the cost for 20 students? _____
_____

E.C. If the student council pays $1930, find how many students attended the party? SYW

13. Josh stops at Austin's house on his way to the gym. Austin's mother says that Austin left a couple of minutes ago. Josh leaves Austin's house, walking quickly to catch up with Austin. **Label** the graph below to show the distance and time each boy walks from Austin's house if the grid lines are **worth 1 minute (x-axis) each and 200 feet (y-axis) each**.



a. Label which line is Austin and which is Josh
b. Write & label Josh's unit rate: ___
c. Circle on the graph where they meet.
d. How long does it take Josh to catch Austin? _____
e. How far does Josh walk before they meet? _____
f. What is Austin's walking rate? _____
g. How can you determine the walking rate by looking at the graph? _____
h. Each graph intersects the distance axis (the y-axis). What information do these points of intersection give about the situation? _____
i. Who will be farther ahead after 8 min. if they keep walking at their same rates?
j. Fill in the two tables to show Josh and Austin's positions.

Josh

x	Pattern	y	Shorthand
X		**Y**	

Austin

x	Pattern	y	Shorthand
X		**Y**	

l. How many minutes head start did Austin get? _____
m. How can you see this in the graph? _____
n. Estimate the x-intercept for Austin's graph line: (, 0)