

# 1A Ready, Set, Go

Name \_\_\_\_\_ Per: \_\_\_\_\_

NO WORK, NO CREDIT. PENCIL ONLY.

**Objective:** Understand parts of slope-intercept equations. Due: Aug 28<sup>th</sup>/Aug 29<sup>th</sup>

- The x-intercept is where the line crosses the \_\_\_\_\_. This is where \_\_\_\_\_ = 0.
- The y-intercept is where the line crosses the \_\_\_\_\_. This is where \_\_\_\_\_ = 0.
- $y = mx + b$ . What does the  $m$  represent? \_\_\_\_\_. What does the  $b$  represent? \_\_\_\_\_
- Explain how you can find the slope of an equation. \_\_\_\_\_  
How about the x and y intercepts from an equation. \_\_\_\_\_
  - Explain how you can calculate slope of a table. \_\_\_\_\_  
How about the x and y intercepts from a table. \_\_\_\_\_
  - 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

- Find the slope/rate of change for the table to the left. \_\_\_\_\_
- What is the y-intercept for the table? \_\_\_\_\_
- Write the equation for the line: \_\_\_\_\_
- What is the x-intercept for the table? \_\_\_\_\_

6.

x	y
-1	150
0	300
1	450

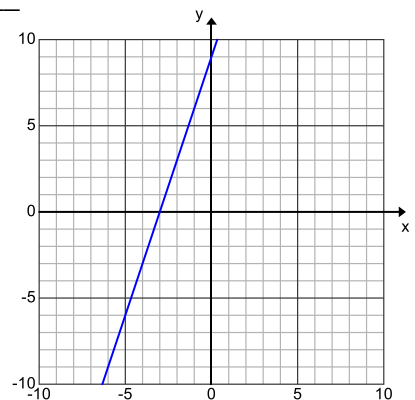
- Find the slope/rate of change for the table to the left. \_\_\_\_\_
- What is the y-intercept for the table? \_\_\_\_\_
- Write the equation for the line: \_\_\_\_\_

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**.

- Slope \_\_\_\_\_
- What is the x-intercept? \_\_\_\_\_
- What is the y-intercept? \_\_\_\_\_
- 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 reserved a room 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.

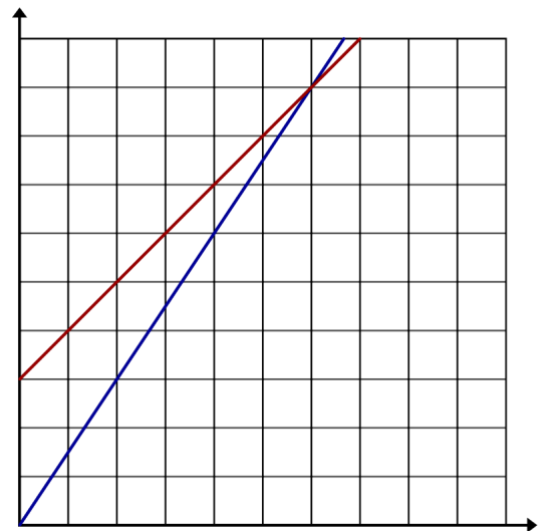
# of students	Pattern	Resort Cost	Short Hand
3		\$180	
4		\$230	
$n$		\$\$	

- Write the above given data as coordinate points. \_\_\_\_\_
- How much did the room cost? \_\_\_\_\_. Explain \_\_\_\_\_
- Is the relationship between the number of people and total cost linear? \_\_\_\_\_
- How do you know? \_\_\_\_\_
- 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**.



- Label which line is Austin and which is Josh
- Write & label Josh's unit rate: \_\_\_\_\_
- Circle on the graph where the lines cross. What does that mean in context of the story? \_\_\_\_\_
- How long does it take Josh to catch Austin? \_\_\_\_\_
- How far does Josh walk before they meet? \_\_\_\_\_
- What is Austin's walking rate? \_\_\_\_\_
- How can you determine the walking rate (rate of change) by looking at the graph? \_\_\_\_\_
- Each graph intersects the distance axis (the y-axis). What information do these points of intersection give about the situation? \_\_\_\_\_
- Who will be farther ahead after 8 min. if they keep walking at their same rates?
- Fill in the two tables to show Josh and Austin's positions.

Josh			
x	Pattern	y	Shorthand
<b>X</b>		<b>Y</b>	

Austin			
x	Pattern	y	Shorthand
<b>X</b>		<b>Y</b>	

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