

Name: _____ Block: _____ Date: _____

Essential Question:**x-intercept****y-intercept**

Examples: Find the x and y intercept of the following lines:

1. $2x - 3y = 12$

2. $-4x + 6y = 36$

3. $2x + 7y = 28$

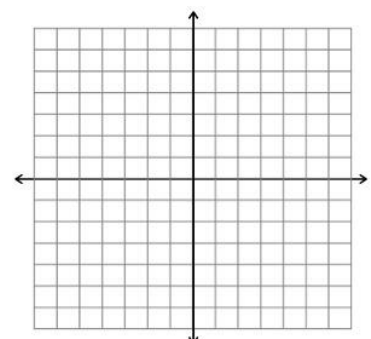
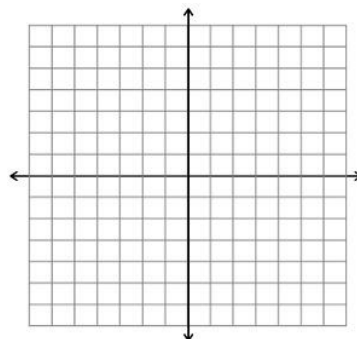
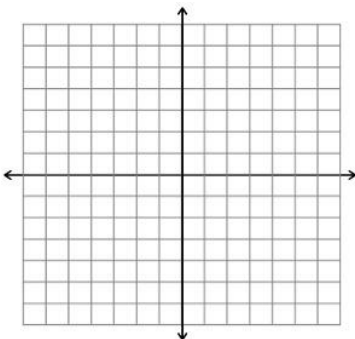
4. $4x + 2y = 10$

Graph the equations by finding the x- and y- intercepts.

5. $x + 2y = 4$

6. $4x + 8y = 24$

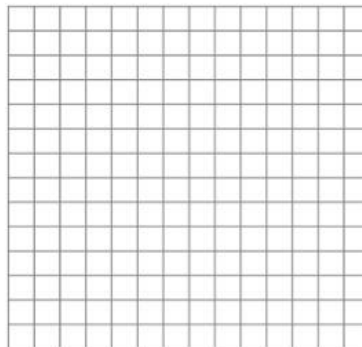
7. $2x - 3y = 12$



Ex. 8: You are helping to plan an awards banquet for your school and you need to rent tables to seat 180 people. Tables come in two sizes. Small tables seat 4 people and large tables seat 6 people. This situation can be modeled by the following equation:

$$4x + 6y = 180$$

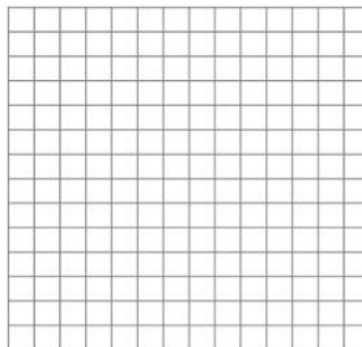
- Find the intercepts of the graph of the equation
- Graph the equation
- Give four possibilities for the number of each size table you could rent



Ex. 9: You make and sell decorative bows. You sell small bows for \$3 and large bows for \$5. You want to earn \$60 per week. This situation can be modeled by:

$$3x + 5y = 60$$

- Find the intercepts of the graph of the equation
- Graph the equation
- Give three possibilities for the number of each type of bow you can sell to earn \$60.



Graph Horizontal and Vertical Lines

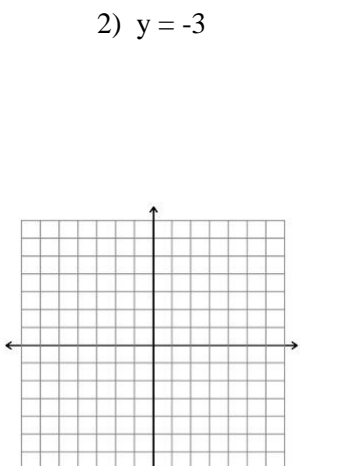
Horizontal Lines: Always have a slope of _____. Vertical Lines: Their slope is _____.

Examples: Graph the following:

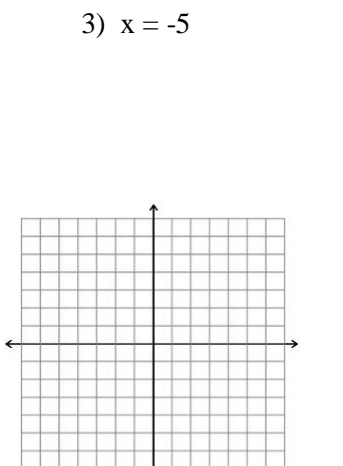
1) $x = 2$



2) $y = -3$



3) $x = -5$



4) $y = 2$

