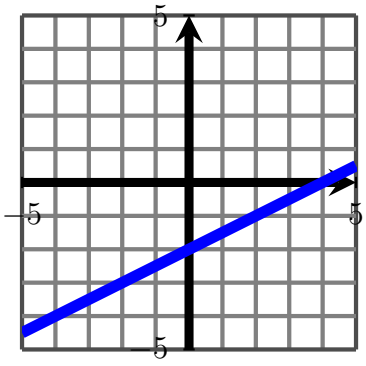
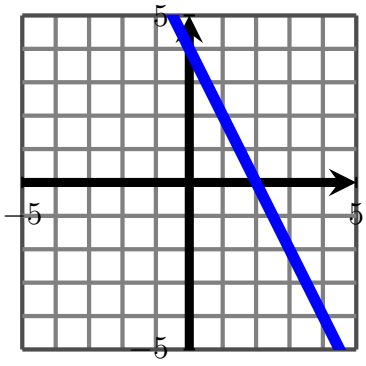
Intercepts of Linear Equations

Name:_____

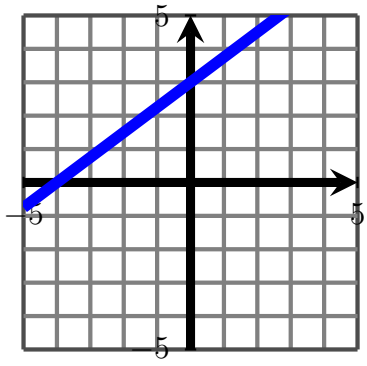
1. Find the x and y intercepts of the graphs below.
(Intercepts are where the line crosses a dark black axis.)



x-intercept: **y-intercept:**



x-intercept: **y-intercept:**



x-intercept: **y-intercept:**

2. Find the x and y intercepts of the equations below.
(Intercepts are solutions where $x = 0$ or $y = 0$.)

(A) $x = y + 2$

(B) $3x + 2y = 12$

(C) $y = 2x + 4$

3. Usually a line will have exactly ONE x intercept. But other types are possible!

Give a line with NO x intercept.

Give a line with MORE THAN ONE x intercept.

5. The tables below give intercepts for an equation. Following the pattern, expand to each side.

Equation: $2x - 3y = 6$

Solutions:

x		0	3	
y		-2	0	

Equation: $5x + 2y = 10$

Solutions:

x		0	2	
y		5	0	

5. Compute the intercepts and enter them into the table.
Then use the pattern to find another solution.
Then check that the new point is a solution.

Equation: $2x + y = 4$

Solutions:

x	0		
y		0	

Check new point: $2x + y = 4$

Equation: $x + 3y = 6$

Solutions:

x	0		
y		0	

Check new point: $x + 3y = 6$

6. Find the intercepts.
Use the pattern to find another solution.
Then graph.

$$3x - y = 3$$

x	0		
y		0