MM Algebra 1 Name: _____
Mr. Villegas Date: _____

From Rules to Graphs

Aim/Essential Question: **How do we read graphs?**

Do now: *As you read the task below, underline any word you think might be important. Write a question mark next to anything you don't understand. Draw a box around the question or task you are being asked to complete, if any.*

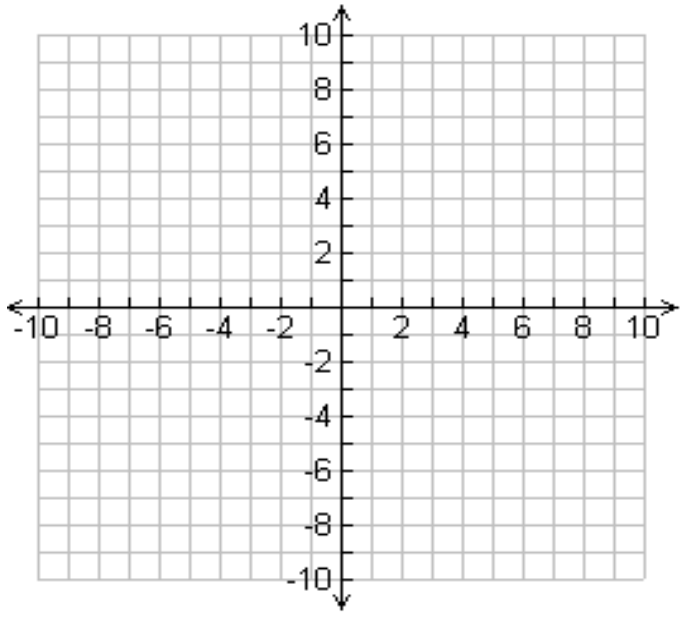
Important term	Definition

From Rules to Graphs

In *Out Numbered*, you started from graphs, made In-Out tables, and then found rules for those tables.

This process can be reversed. You can start from a rule, make an In-Out table by finding pairs of numbers that fit the rule, and then create a graph using the pairs in the table to give you points on the graph.

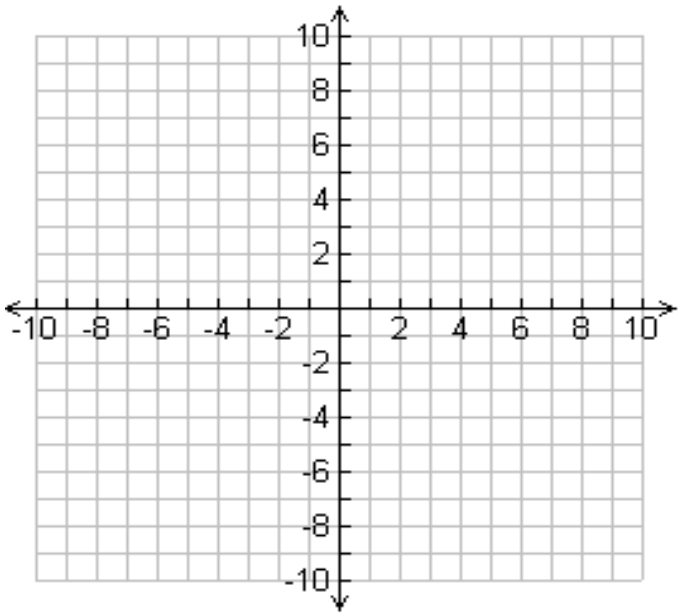
You have come across many different In-Out rules so far. Sometimes the rules came from problem situations. Other rules came from tables that had no context. In either case, the rule itself can be used to create a graph. Do not restrict yourself to the first **quadrant** or to whole numbers. Consider all numbers, including negative and noninteger values.

a. Make a table with some In-Out pairs that fit the rule Out= 4 × In - 4 b. Plot the number pairs (called ordered pairs) from your table on a coordinate system. Use appropriate scales. c. Continue until you have a good idea of what the whole graph looks like. Then sketch the graph	

a. Make a table with some In-Out pairs that fit the rule Out = In^2

b. Plot the number pairs (called ordered pairs) from your table on a coordinate system. Use appropriate scales.

c. Continue until you have a good idea of what the whole graph looks like. Then sketch the graph

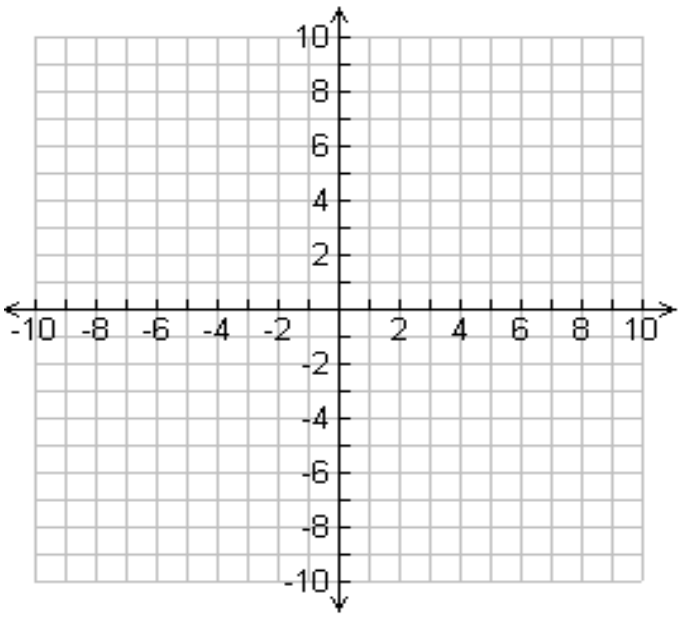


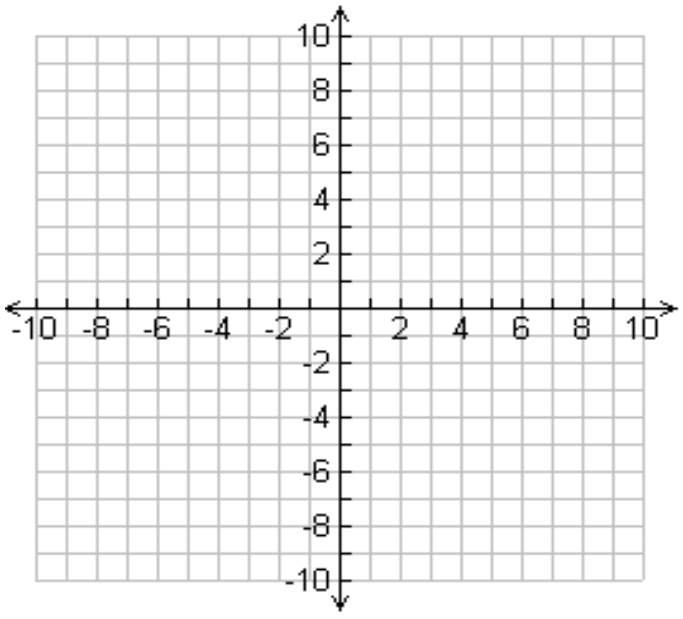
Often the standard letters x and y are used instead of the words *In* and *Out*. When you see an equation using x and y, you should assume that x represents the **independent variable,** or the *In*, which goes on the horizontal axis. The y represents the **dependent variable,** or the *Out*, which goes on the vertical axis.

4. Graph each equation, using a complete coordinate system.

a. $y = 5x + 3$

b. $y = 10 - 2x^2$



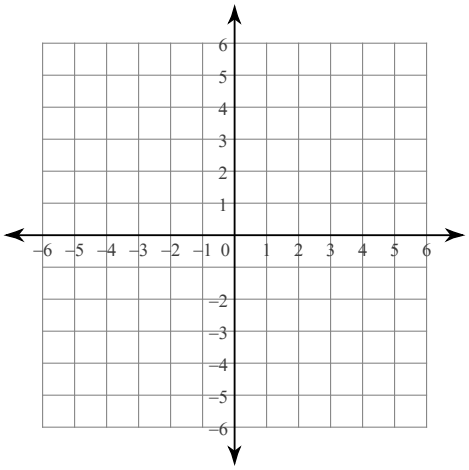


Summer School: Algebra 1: Week 2 Day 4 Name_____

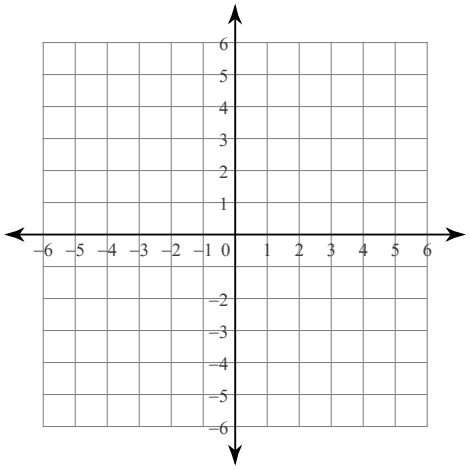
Graphing Linear Equations Using Slope-Intercept Method Date_____ Period____

Sketch the graph of each line.

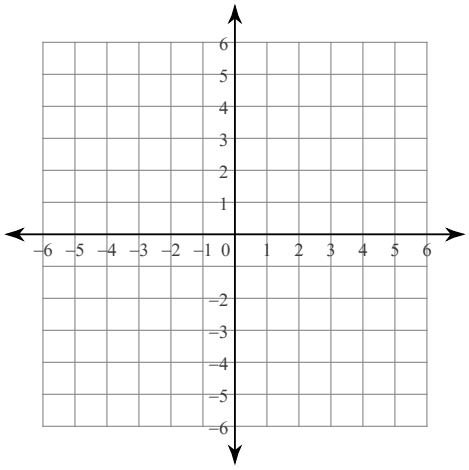
1) $y = -4x - 1$



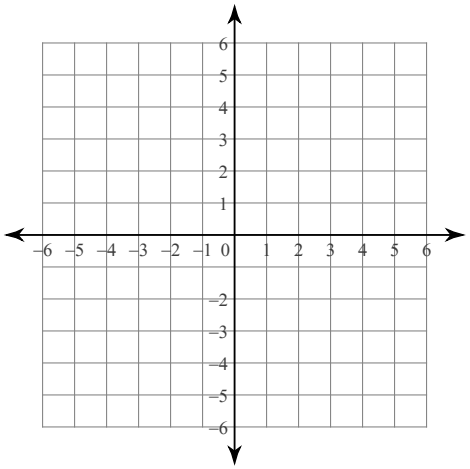
2) $y = \frac{1}{4}x - 2$



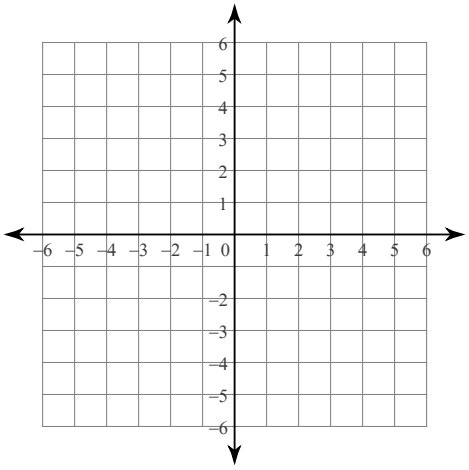
3) $y = \frac{1}{2}x + 2$



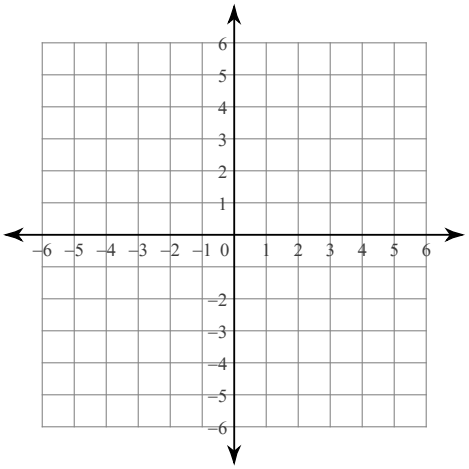
4) $y = -x + 3$



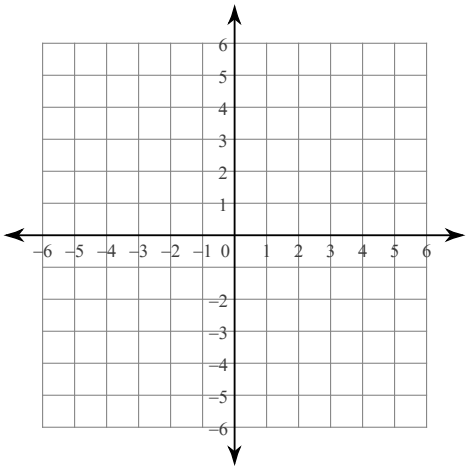
5) $y = -\frac{1}{5}x + 2$



6) $y = 2x - 3$



7) $y = -\frac{2}{5}x + 2$



8) $y = -\frac{5}{2}x - 1$