Topic:

Class:

### Main Ideas/Questions

### Notes/Examples

## **GRAPHING LINEAR**

**EQUATIONS** (By Slope-Intercept)

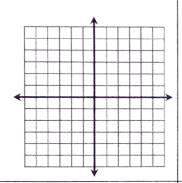
Use the steps below to graph an equation using slope-intercept form:

- Write the equation in
- 2 Graph the . This is always point (0, ).
- of the line to create more points. Remember slope Use the is rise/run!

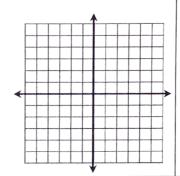
a line that extends through the points, placing an arrow on both ends.

Directions: Graph each equation using the slope-intercept method.

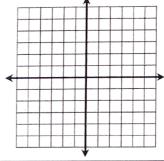
**1.** 
$$y = -x + 5$$



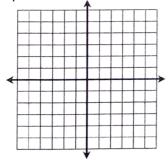
**2.** 
$$y = -3x - 1$$



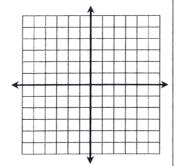
**3.** 
$$y = \frac{2}{5}x + 2$$



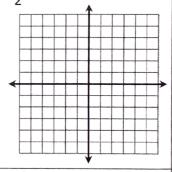
**4.** 
$$y = -\frac{1}{4}x + 3$$



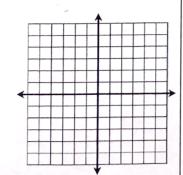
**5.** 
$$y = 2x + 6$$



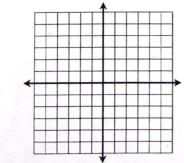
**6.** 
$$y = -\frac{3}{2}x - 5$$



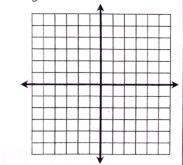
**8.** 
$$y = -4x$$



**7.** 
$$y = -3 + 5x$$



**9.** 
$$y = 1 - \frac{6}{5}x$$



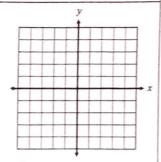
# Vertical & Horizontal Lines Equations of Vertical & Horizontal Lines

### Notes/Examples

### Graph the points in the table and connect them to form a line.

					<i>y</i>			
x	y	]						
1	-5			+	+	H	+	-
1	-2	+		-		H		-
1	0			$\pm$				
1	4		+	+	+	$\vdash$	+	+

X	y
-3	-4
1	-4
2	-4
5	-4



# A vertico

### Vertical Lines

A **vertical line** is written in the form x = a, where a represents the line's x-intercept.

The equation of the **vertical** line graphed above is

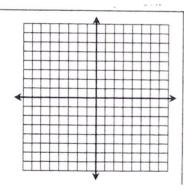
### **Horizontal Lines**

A horizontal line is written in the form y = a, where a represents the line's y-intercept.

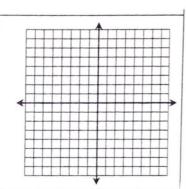
The equation of the **horizontal** line graphed above is

\*\*Remember, if the line intersects the x-axis, it's x = a, if a line intersects the y-axis, it's y = a.\*\*

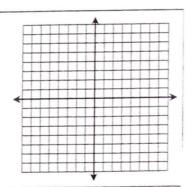




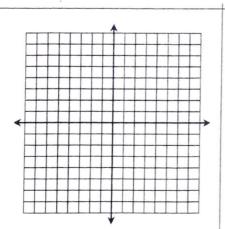
$$\int_{1}^{\infty} x = -1$$



$$12.x = 3$$



$$3.5x - y = -3$$



$$4x + 3y = 21$$

