

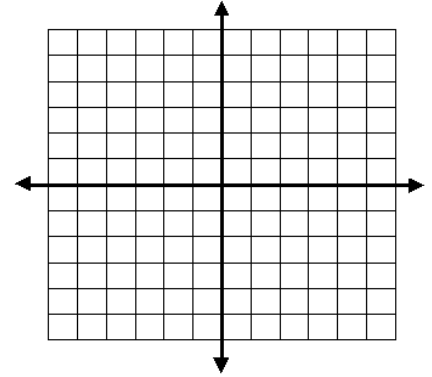
SECTION 3.2

GRAPHING LINEAR EQUATIONS

A. Show algebraically that $(2, 5)$ and $(-3, -5)$ are solutions of $y = 2x + 1$.

B. Graph these two points and sketch a line through them.

C. Determine at least two other solutions to $y = 2x + 1$ and graph.



D. How many solutions are there for $y = 2x + 1$?

E. Choose a point not on the line. Is it a solution to $y = 2x + 1$?

A linear equation is a first degree equation with 2 variables.

The solutions to a linear equation are ordered pairs.

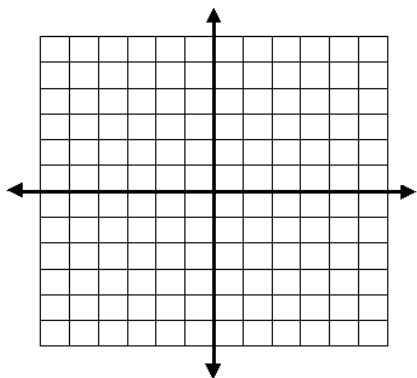
There are an infinite number of solutions to a linear equation.

The solutions fall in a straight line when graphed.

The line represents all the solutions to the linear equation.

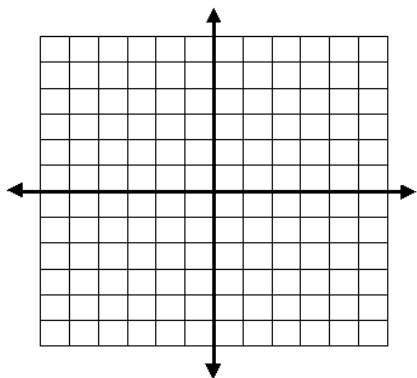
TO GRAPH A LINEAR EQUATION:

1. Solve the equation for y .
2. Select a value for one coordinate and calculate the corresponding value of the other coordinate. Form an ordered pair. This pair is one solution of the equation.
3. Repeat step two to find at least two other ordered pairs.
4. Plot the ordered pairs and draw a straight line passing through the points. The line represents all solutions to the equation.



1. Graph $y = x - 3$

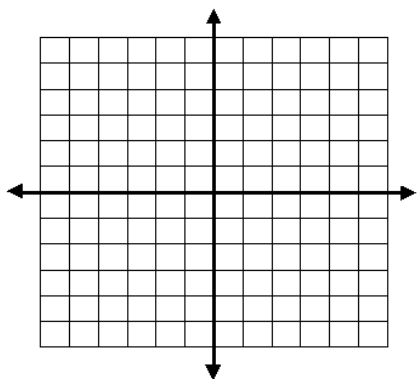
X	Y	(X, Y)
	Equation:	



2. Graph $y = -\frac{1}{3}x$

(HINT: Choose numbers divisible by 3!)

X	Y	(X, Y)
	Equation:	

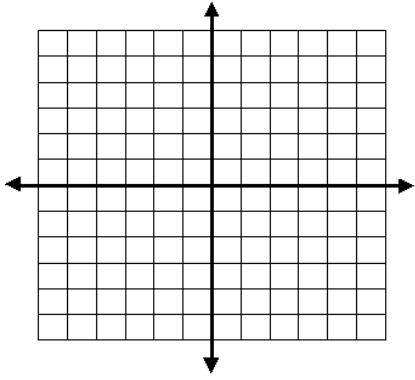


3. Graph $y = \frac{3}{4}x + 2$

(What should you choose?)

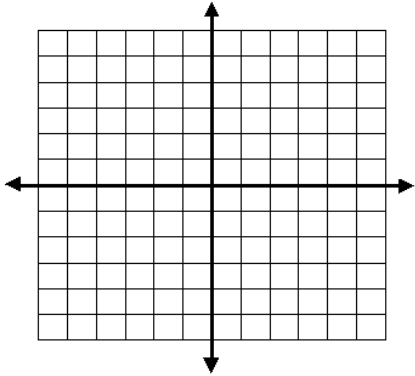
X	Y	(X, Y)
	Equation:	

4. $y = -2x + 1$



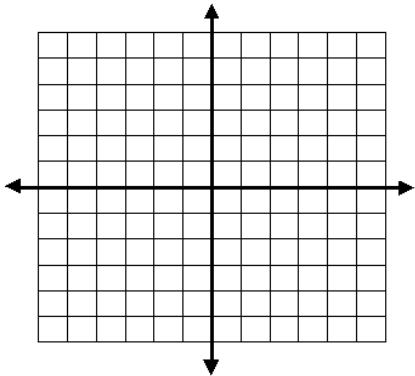
X	Y	(X, Y)
	Equation:	

5. $y = 3x - 2$



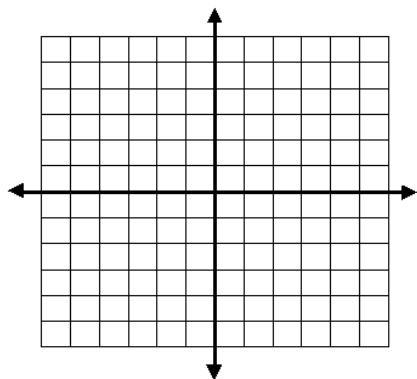
X	Y	(X, Y)
	Equation:	

6. $y = \frac{4}{3}x - 2$



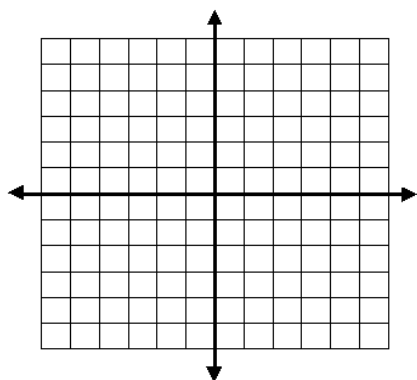
X	Y	(X, Y)
	Equation:	

3.2 Homework; page 165; on notebook paper do all 1-5, all 7-10 and on this worksheet do all 21-32



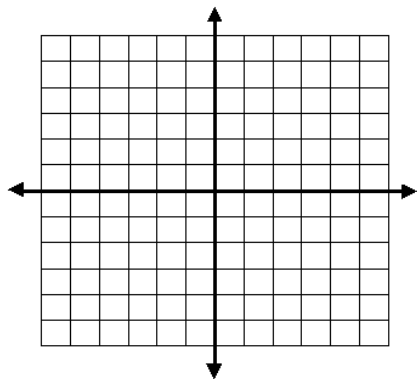
21.

X	Y	(X, Y)
	Equation:	



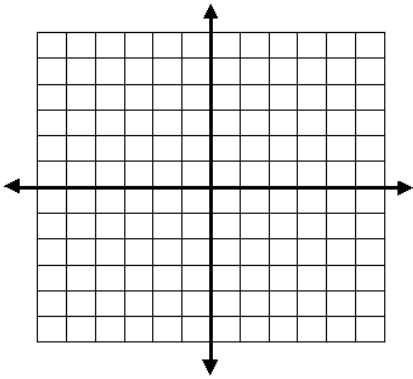
22.

X	Y	(X, Y)
	Equation:	



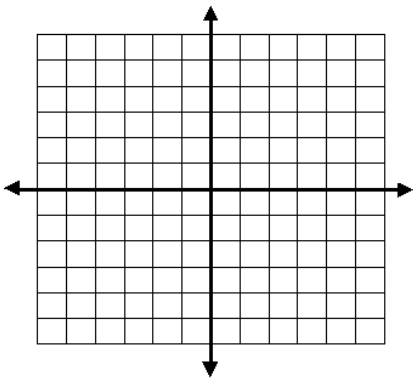
23.

X	Y	(X, Y)
	Equation:	



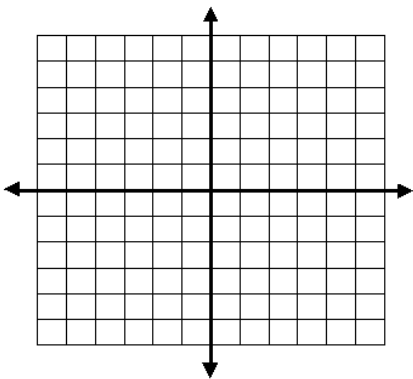
24.

X	Y	(X, Y)
	Equation:	



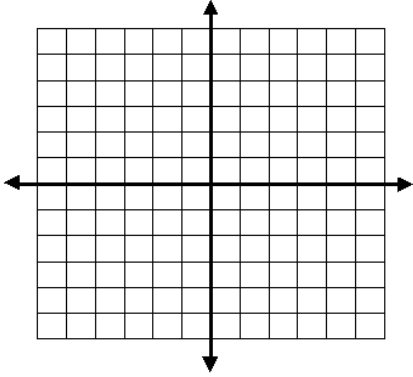
25.

X	Y	(X, Y)
	Equation:	



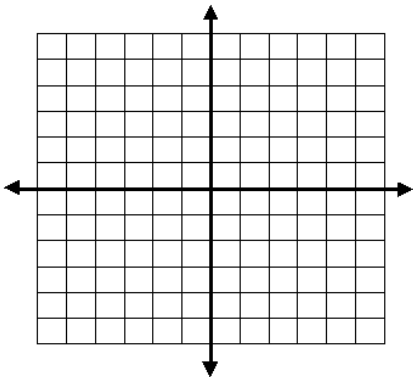
26.

X	Y	(X, Y)
	Equation:	



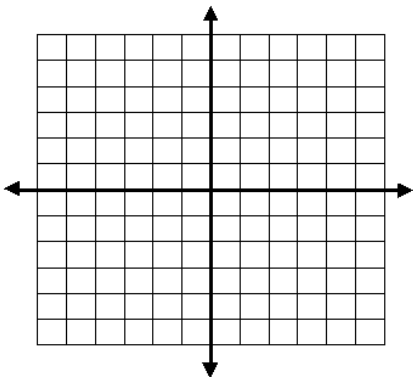
27.

X	Y	(X, Y)
	Equation:	



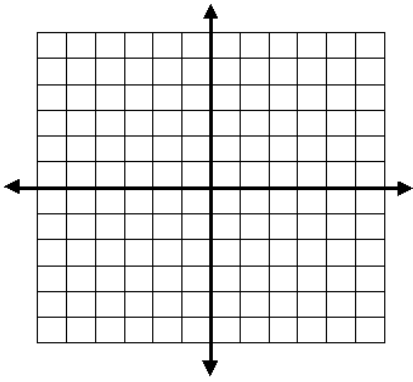
28.

X	Y	(X, Y)
	Equation:	



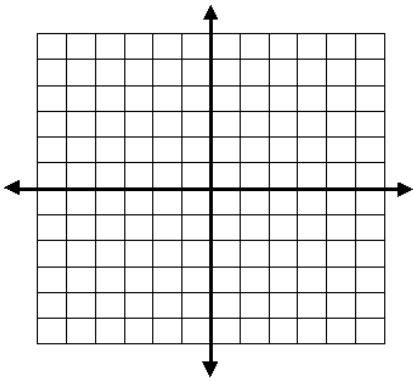
29.

X	Y	(X, Y)
	Equation:	



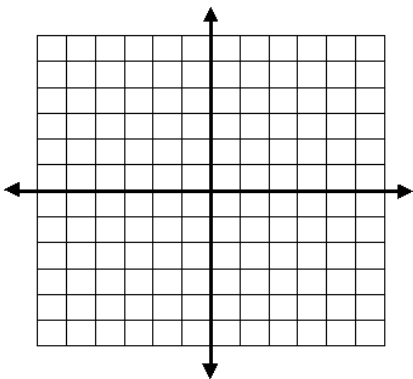
30.

X	Y	(X, Y)
	Equation:	



31.

X	Y	(X, Y)
	Equation:	



32.

X	Y	(X, Y)
	Equation:	