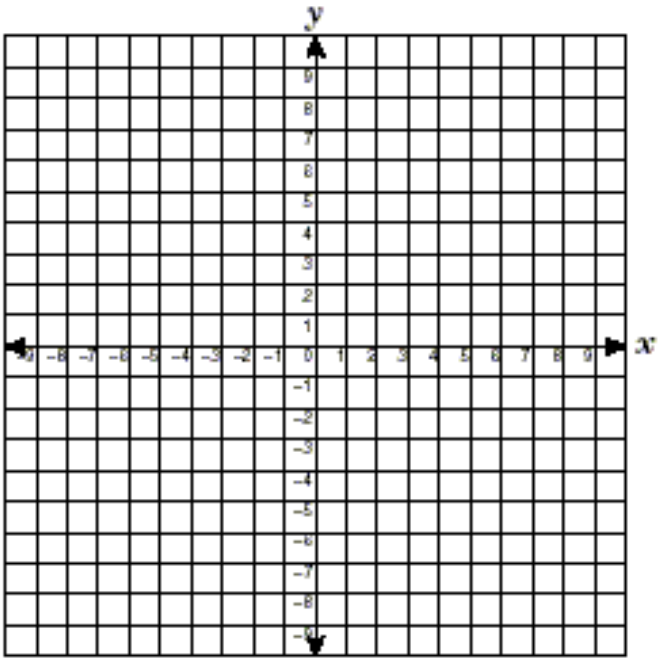
Chapter 4

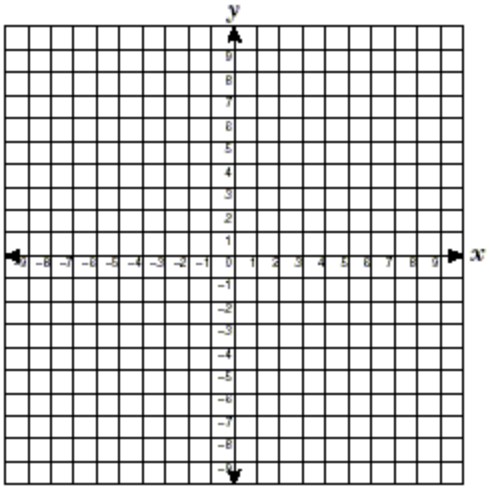
4.1 Coordinates



Examples: A (-2,3) B (3,-4) C (0,-2)

Practice:
Plot the following points on the same coordinate plane.

A (-3,-2) B (4,0) C (1,4) D (-3,2)



4.2 Graphing Linear Equations

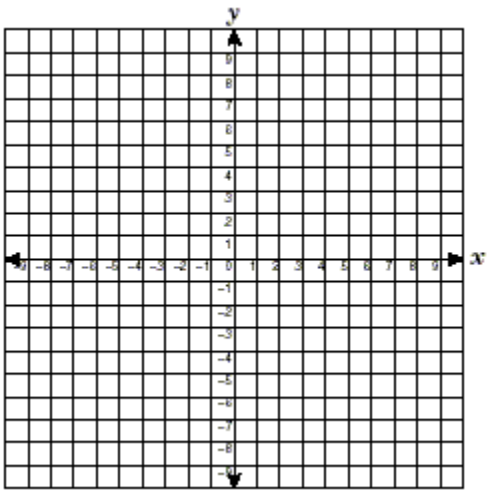
Verifying Solutions of an Equation

Graphically—

Algebraically—

Graphing a Linear Equation

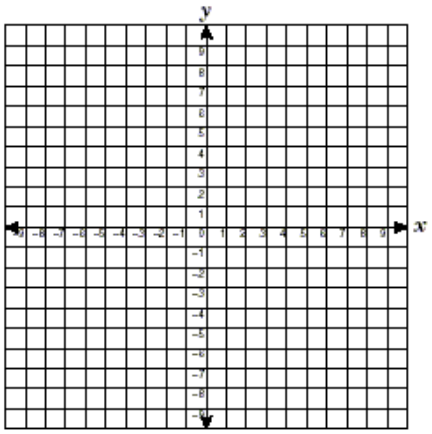
Examples



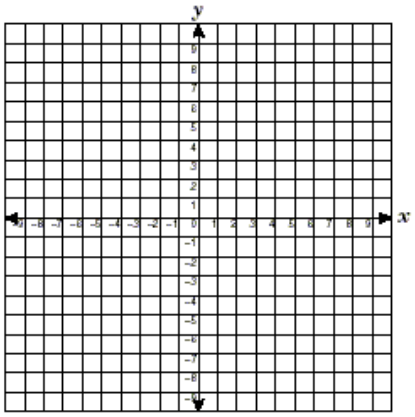
Practice

Use a table of values to graph the equations:

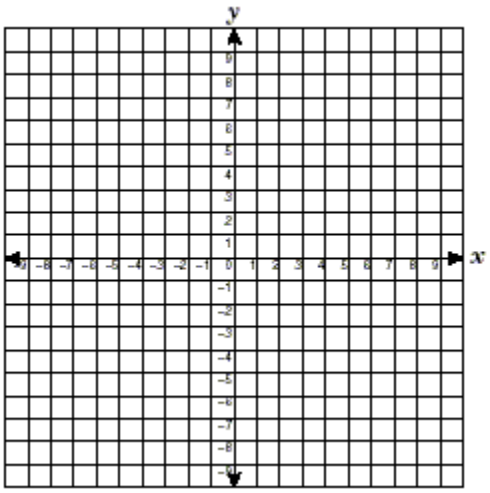
1. $2x + 3y = -6$



2. $x - 2y = 1$



Equations of Horizontal and Vertical Lines

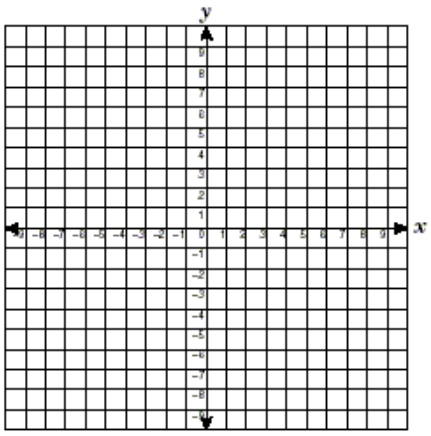


4.3 Graphing Using Intercepts

x-intercept

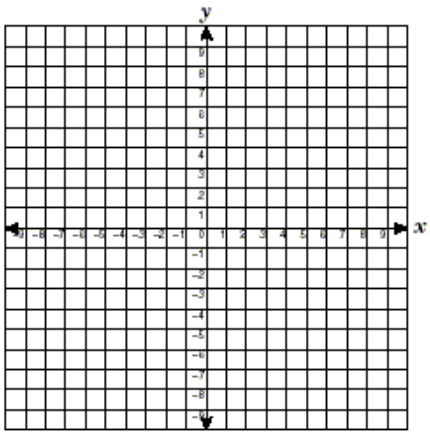
y-intercept

Example:



Practice

Graph $3x + 2.5y = 7.5$

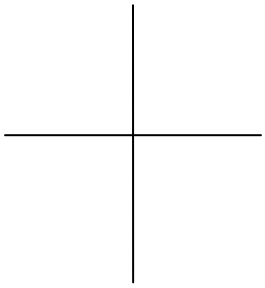


4.4 The Slope of a Line

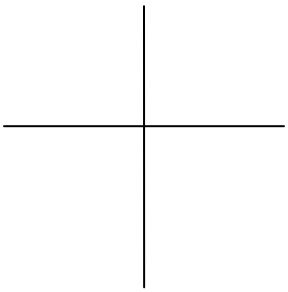
Finding the slope of a line:

Classification of lines

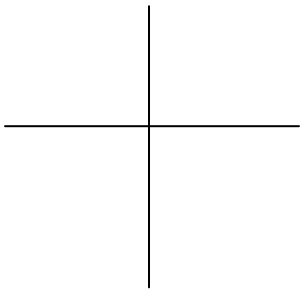
Positive



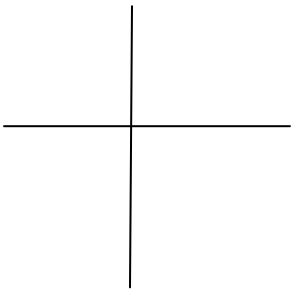
Negative



Zero



Undefined



Practice:

Find the slope of each line and then classify the line by its slope.

1. (-2, -3) & (1, 2)

2. (-2, -3) & (4, -3)

3. (-1, -4) & (-1, -2)

4.5 Direct Variation

"y varies directly as x"

Example

Practice

Y varies directly as x. Use the given values to write an equation that relates x & y, then find the value of y when x= -2.

1. x=6, y=30

2. X=8, y=20

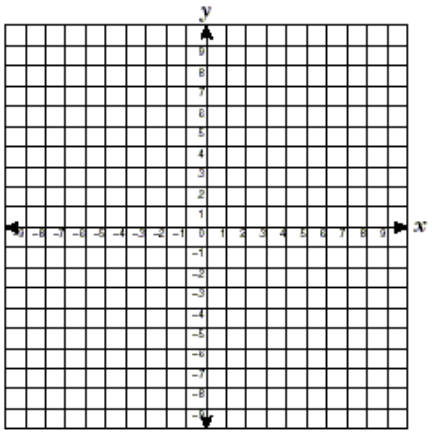
4.6 Graphing Using Slope-Intercept Form

Slope-Intercept Form

Writing Equations in Slope-Intercept Form

Example

Graphing using the Slope & y-intercept

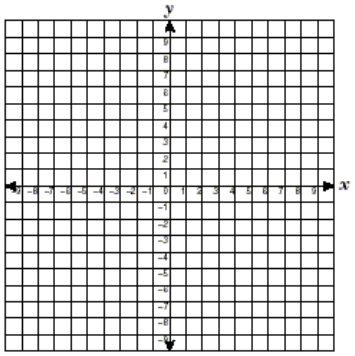


Parallel Lines

Practice

Graph

1. 2x + 3y = 9



2. Decide whether the graphs of the two equations are parallel lines.

$y = 5 - 2x,\ \ y + 2x = 0$