

# Algebra I

## 9-1

### Solving Systems of Equations Graphically

Definition of Solving a System of Equations -

Solving more than one equation at a time.

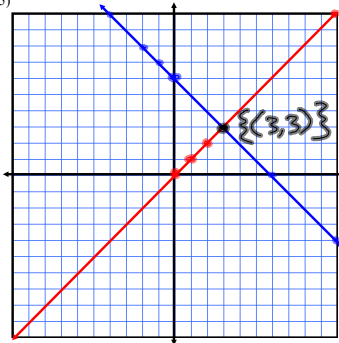
Look where the lines cross.

Solve each system graphically. (pg 415)

1)  $y = x$  \*  
 $y = 6 - x$  \*

$y = x$   
 $m = 1, b = 0$

$y = 6 - x$   
 $m = -1, b = 6$



7)  $3x - 9y = 0$  \*  
 $-x + 3y = -3$

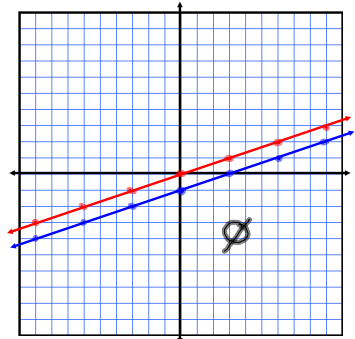
$3x - 9y = 0$   
 $3x - 9y + 9y = 0 + 9y$

$\frac{3x}{9} = \frac{9y}{9}$   $m = \frac{1}{3}$

$\frac{1}{3}x = y$   $b = 0$

$-x + 3y = -3$   
 $-x + x + 3y = x - 3$

$\frac{3y}{3} = \frac{x - 3}{3}$   $m = \frac{1}{3}$   $b = -1$   
 $y = \frac{1}{3}x - 1$



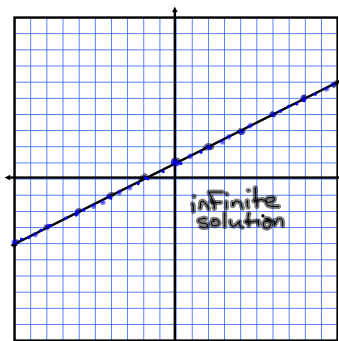
9)  $y = \frac{1}{2}x + 1$   $m = \frac{1}{2}$   $b = 1$

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

$4x - 4x - 8y = -4x - 8$

$\frac{-8y}{-8} = \frac{-4x - 8}{-8}$

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



Pg 415  
 2-16 even  
 17, 18  
 (8 Graphs)