

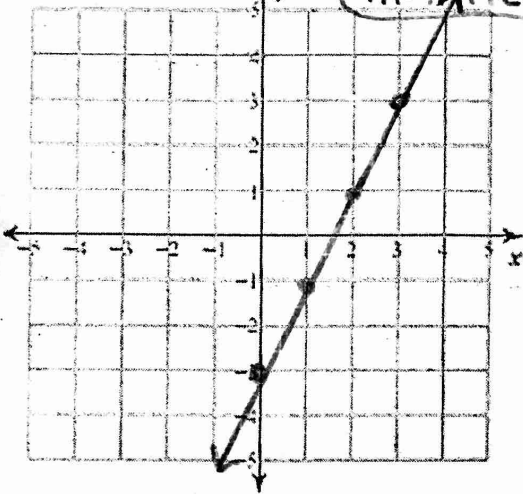
Solving Systems of Equations by Graphing

Name: \_\_\_\_\_

1.  $y = 2x - 3$   $m=2$   
 $-4x + 2y = -6$   $b=-3$

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

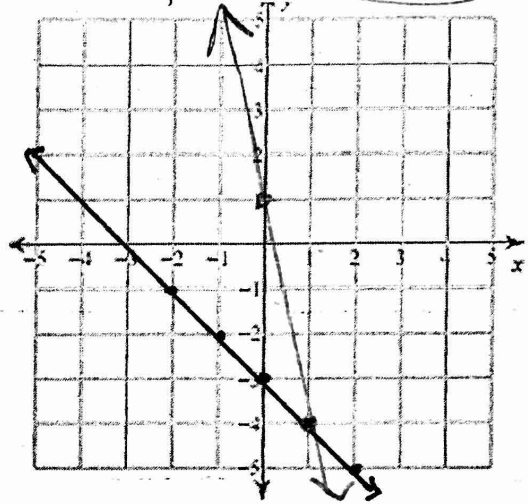
Infinite Solutions



2.  $y = -5x + 1$   $m=-5$   
 $x + y = -3$   $b=1$

$y = -x + -3$   
 $m=-1$ ,  $b=3$

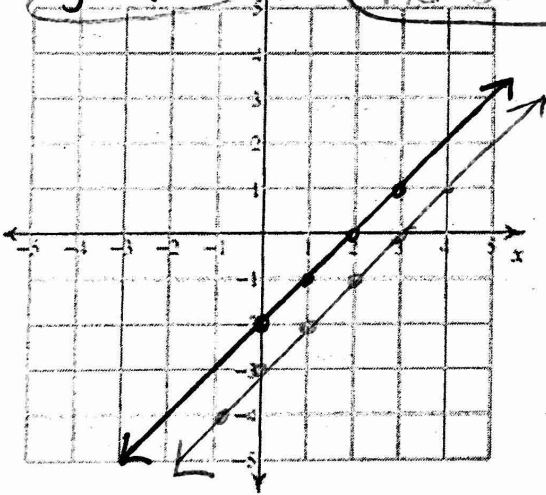
(1, -4)



3.  $x - y = 3$   $-y = -x + 3$   $m=1$   
 $x - y = 2$   $y = x + 3$   $b=-3$

$m=1$   
 $b=-2$   $-y = -x + 2$   
 $y = x + 2$

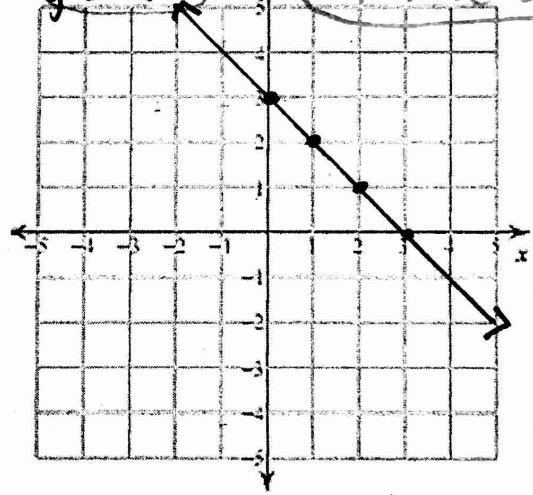
No Solution



4.  $x + y = 3$   $y = -x + 3$   $m=-1$   $b=3$   
 $2x + 2y = 6$

$2y = -2x + 6$   $m=-1$   
 $y = -x + 3$   $b=3$

Infinite Solutions



5.  $3x - 2y = 4$   
 $-6x + 4y = 8$

$-2y = -3x + 4$

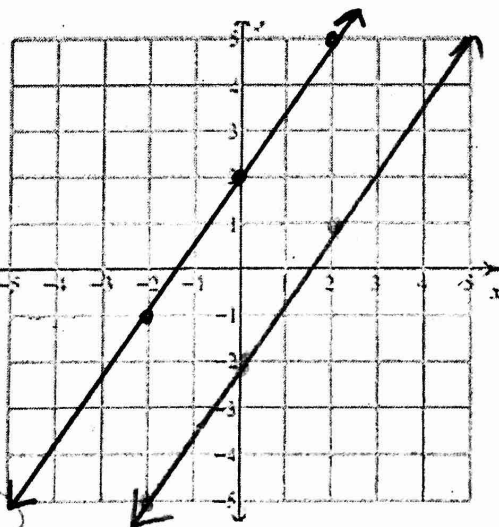
$y = \frac{3}{2}x - 2$

$4y = 6x + 8$

$y = \frac{6}{4}x + 2$

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

No Solution



$m = \frac{3}{2}$   
 $b = -2$

$m = \frac{3}{2}$   
 $b = 2$

For Exercise 6, complete the table below. Use the space below the table to write equations in slope - intercept form, if needed. DO NO GRPAH!

System of Equations	Slopes	y - intercepts	Graph (intersecting lines, parallel lines, OR same line)	Number of Solutions (One, No, OR Infinite Solutions)
① $y = 2x + 2$ $y = 2x - 1$	$m = 2$ $m = 2$	$b = 2$ $b = -1$	Parallel	NO solution $\emptyset$
② $y = -x + 3$ $y = -1x + 3$	$m = -1$ $m = -1$	$b = 3$ $b = 3$	Same	infinite $\infty$
③ $y = 5x + 1$ $y = 2x - 4$	$m = 5$ $m = 2$	$b = 1$ $b = -4$	intersecting	one (,)
④ $2y + 4x = 8$ $x + y = 4$	$m = -2$ $m = -1$	$b = 4$ $b = 4$	intersecting	one (,)
⑤ $y = -\frac{3}{4}x + 8$ $y = \frac{2}{3}x - 7$	$m = -\frac{3}{4}$ $m = \frac{2}{3}$	$b = 8$ $b = -7$	intersecting	one (,)
⑥ $y = -\frac{1}{2}x + 1$ $2y = -x + 6$	$m = -\frac{1}{2}$ $m = -\frac{1}{2}$	$b = 1$ $b = 3$	parallel	No solution $\emptyset$
⑦ $y = 2$ $x = -3$	$m = 0$ $m = \text{undefined}$	$b = 2$ $b = \text{none}$	intersecting	one (,)
⑧ $y = 1$ $y = -4$	$m = 0$ $m = 0$	$b = 1$ $b = -4$	Parallel	No solution $\emptyset$
⑨ $y = 4$ $-4 + y = 0$	$m = 0$ $m = 0$	$b = 4$ $b = 4$	same	infinite $\infty$

④  $2y = -4x + 8$   $y = -x + 4$   
 $y = -2x + 4$

⑥  $2y = -x + 6$   
 $y = -\frac{1}{2}x + 3$

⑨  $-4 + y = 0$   
 $y = 4$

Remember  
x = # vertical  
y = # horizontal