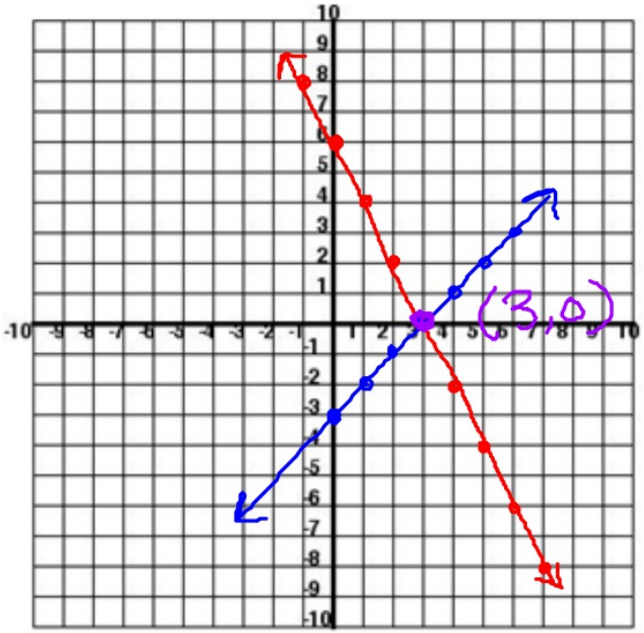
3.1 – 3.2 Quiz Prep
Algebra I B

Name:
Hr:

Solve each system by **graphing**. Then tell whether the system has *one solution, many solutions, or no solution.*

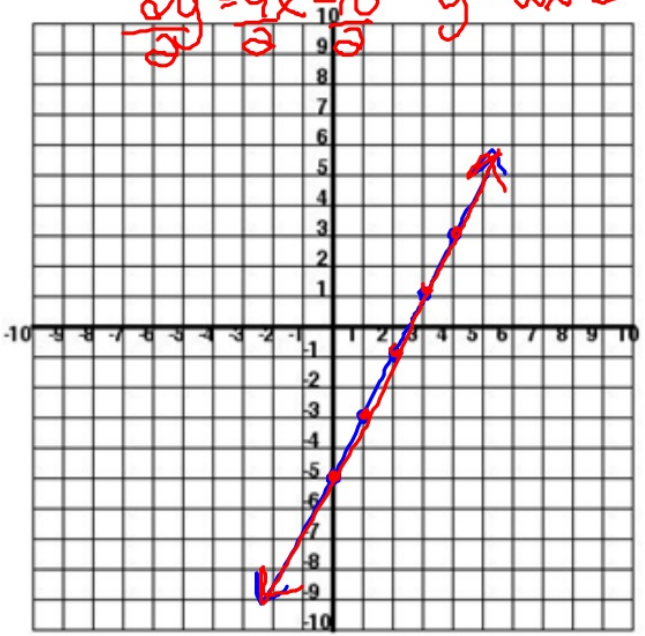
1. $y = -2x + 6$
   $y = x - 3$



2. $y = 2x - 5$
   $2y + 10 = 4x$

$-10 \quad -10$

$\frac{2y}{2} = \frac{4x}{2} - \frac{10}{2}$ $\quad y = 2x - 5$



1. (3,0)

2. Many Solutions

Solve the following system by **substitution**. Then state whether the system has *one solution, many solutions, or no solution.*

3. $x = y + 4$
   $4y = x - 1$

3. _____

$4y = (y + 4) - 1$

$4y = y + 3$

$-y \quad -y$

$3y = 3$

$\frac{3y}{3} = \frac{3}{3}$

$y = 1$ ✓

$x = y + 4$

$x = 1 + 4$

$x = 5$ ✓

$(5, 1)$

Solve the following systems by **elimination**. Then state whether the system has *one solution, many solutions, or no solution.*

5. $x + y = 4$
   $2x + 2y = -12$

$-2(x + y = 4) \rightarrow -2x - 2y = -8$

$+\ 2x + 2y = -12$

$0 \neq -20$

No Solution

6. $-2x + y = 9$
   $2x + 2y = -27$

$+$

$3y = -18$

$\frac{3y}{3} = \frac{-18}{3}$

$y = -6$ ✓

$-2x + (-6) = 9$

$-2x - 6 = 9$

$+6 \quad +6$

$-2x = 15$

$\frac{-2x}{-2} = \frac{15}{-2}$

$x = -7.5$ ✓

5. _____

6. $(-7.5, -6)$

7. **Tigers Game**: A group of 150 people (adults and children) went to watch the tigers in the play offs. The cost of admissions for adults was $8, and for the children it was $5. The group paid a total of $1008 to get into the game. How many adults and how many children were apart of that group that went to Tigers Stadium and watched the game? 7. _____

a c

$-5(a + c = 150)$

$8a + 5c = 1008$

$-5a - 5c = -750$

$8a + 5c = 1008$

$+$

$3a = 258$

$\frac{3a}{3} = \frac{258}{3}$

$a = 86$

$86 + c = 150$

$-86 \quad -86$

$c = 64$