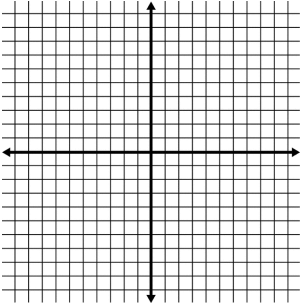
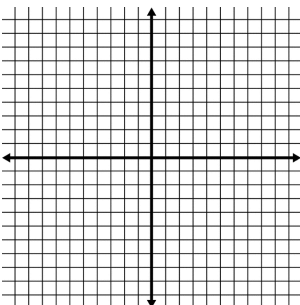
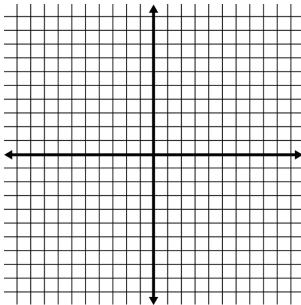


Name_____

Method	Steps	One Solution
GRAPHING		$3x - 5y = -35$ $2x + y = -6$ 
SUBSTITUTION		$x - 3y = -2$ $10x + 8y = -20$
ELIMINATION		$y = -2x + 5$ $y = -5x - 7$
		$x + y = -3$ $5x - 2y = -50$

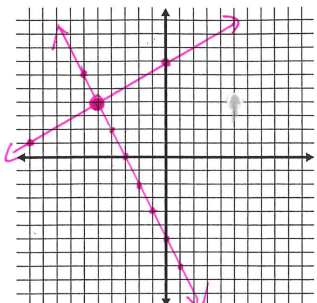
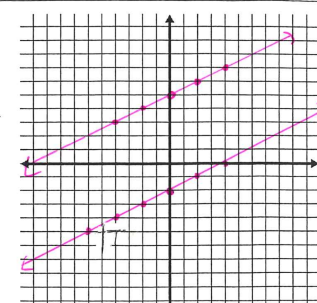
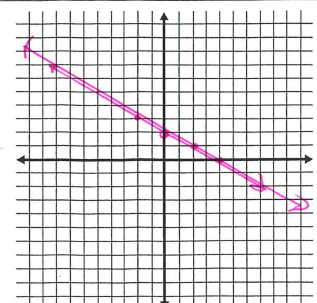
No Solution	Infinitely Many Solutions
$y = \frac{1}{2}x + 5$ $4x - 8y = 16$ 	$3x + 6y = 12$ $x + 2y = 4$ 
$x + 5y = 4$ $3x + 15y = -1$	$12x + 6y = 54$ $2x + y = 9$
$5x + 3y = 10$ $5x + 3y = 15$	$4x + 3y = -10$ $-3y = 4x + 10$
$2x + 4y = 6$ $3x = 12 - 6y$	$4x + y = -3$ $8x + 2y = -6$

CHOOSE YOUR METHOD.

Solve the system of equations below by any method.	
1. $6x + 2y = 24$ $5x + y = 18$	Method used: Why you chose that method?
2. $x + y = 6$ $3x + 3y = 1$	Method used: Why you chose that method?
3. $y = -\frac{2}{3}x - 1$ $y - 5x = -18$	Method used: Why you chose that method?
4. $y = -x + 2$ $2y = -6x$	Method used: Why you chose that method?

CHOOSE YOUR METHOD.

Solve the system of equations below by any method.	
5. $3x - 3y = -18$ $5x + y = -6$	Method used: Why you chose that method?
6. $x = 3y + 8$ $2x - 6y = 2$	Method used: Why you chose that method?
7. $9x - 7y = -14$ $7x + 2y = 4$	Method used: Why you chose that method?
8. $2x - 4y = 26$ $x - 2y = 13$	Method used: Why you chose that method?

Method	Steps	One Solution	No Solution	Infinitely Many Solutions
GRAPHING	1. Rewrite the eqns into slope-int form ($y=mx+b$) 2. Graph the lines 3. Identify the solution(s).	$\begin{aligned} 3x - 5y &= -35 \\ 2x + y &= -6 \end{aligned}$ $y = \frac{3}{5}x + 7$ $y = -2x - 6$ $(-5, 4)$ 	$\begin{aligned} y &= \frac{1}{2}x + 5 \\ 4x - 8y &= 16 \end{aligned}$ $y = \frac{1}{2}x - 2$ $\emptyset$ 	$\begin{aligned} 3x + 6y &= 12 \\ x + 2y &= 4 \end{aligned}$ $y = -\frac{1}{2}x + 2$ $y = -\frac{1}{2}x + 2$ ∞ 
SUBSTITUTION	1. Solve one eqn for x or y ($x = \text{---}$ or $y = \text{---}$) 2. Substitute that expression into the other eqn. 3. Solve for the variable 4. Substitute your ans in to solve for the other variable 5. Write your answer as a pt	$\begin{aligned} x - 3y &= -2 \\ 10x + 8y &= -20 \end{aligned}$ $x = 3y - 2$ $10(3y - 2) + 8y = -20$ $30y - 20 + 8y = -20$ $38y - 20 = -20$ $38y = 0$ $y = 0$ $x - 3(0) = -2$ $x - 0 = -2$ $x = -2$ $(-2, 0)$	$\begin{aligned} x + 5y &= 4 \\ 3x + 15y &= -1 \end{aligned}$ $x = -5y + 4$ $3(-5y + 4) + 15y = -1$ $-15y + 12 + 15y = -1$ $12 \neq -1$ $\emptyset$	$\begin{aligned} 12x + 6y &= 54 \\ 2x + y &= 9 \end{aligned}$ $y = -2x + 9$ $12x + 6(-2x + 9) = 54$ $12x - 12x + 54 = 54$ $54 = 54$ ∞
ELIMINATION	1. Make sure your eqns are lined up! 2. Multiply one or both eqns by some number to create opposite coefficients 3. Add the eqns to eliminate a variable 4. Solve for the remaining variable 5. Substitute your answer to either eqn + solve 6. Write your answer as a pt.	$\begin{aligned} y &= -2x + 5 \\ y &= -5x + 7 \end{aligned}$ $+ \quad -y = 5x + 7$ $0 = 3x + 12$ $-12 = 3x$ $-4 = x$ $y = -2x + 5$ $y = -2(-4) + 5$ $y = 8 + 5$ $y = 13$ $(-4, 13)$	$\begin{aligned} 5x + 3y &= 10 \\ 1(5x + 3y) &= 15 \end{aligned}$ $\rightarrow 5x + 3y = 10$ $\rightarrow -5x - 3y = -15$ $0 \neq -5$ $\emptyset$	$\begin{aligned} 4x + 3y &= -10 \\ -3y &= 4x + 10 \end{aligned}$ $\rightarrow 4x + 3y = -10$ $\rightarrow -4x - 3y = 10$ $0 = 0$ ∞
		$\begin{aligned} x + y &= -3 \\ 5x - 2y &= -50 \end{aligned}$ $\rightarrow 2x + 2y = -6$ $\rightarrow 5x - 2y = -50$ $7x = -56$ $x = -8$ $x + y = -3$ $-8 + y = -3$ $y = 5$ $(-8, 5)$	$\begin{aligned} 2x + 4y &= 6 \\ 3x &= 12 - 6y \end{aligned}$ $\rightarrow 2x + 4y = 6$ $\rightarrow 6x + 12y = 18$ $\rightarrow 3x + 6y = 12$ $\rightarrow -6x - 12y = -24$ $0 \neq -6$ $\emptyset$	$\begin{aligned} 4x + y &= -3 \\ 8x + 2y &= -6 \end{aligned}$ $\rightarrow -8x - 2y = 6$ $\rightarrow +8x + 2y = -6$ $0 = 0$ ∞

CHOOSE YOUR METHOD.

Solve the system of equations below by any method.

1. $6x + 2y = 24$ $5x + y = 18$	$(3, 3)$	Method used: Why you chose that method?
2. $x + y = 6$ $3x + 3y = 1$	$\emptyset$	Method used: Why you chose that method?
3. $y = -\frac{2}{3}x - 1$ $y - 5x = -18$	$(3, -3)$	Method used: Why you chose that method?
4. $y = -x + 2$ $2y = -6x$	$(-1, 3)$	Method used: Why you chose that method?

CHOOSE YOUR METHOD.

Solve the system of equations below by any method.

5. $3x - 3y = -18$ $5x + y = -6$	$(-2, 4)$	Method used: Why you chose that method?
6. $x = 3y + 8$ $2x - 6y = 2$	$\emptyset$	Method used: Why you chose that method?
7. $9x - 7y = -14$ $7x + 2y = 4$	$(0, 2)$	Method used: Why you chose that method?
8. $2x - 4y = 26$ $x - 2y = 13$	∞	Method used: Why you chose that method?