

Name: Key-Notes / CW

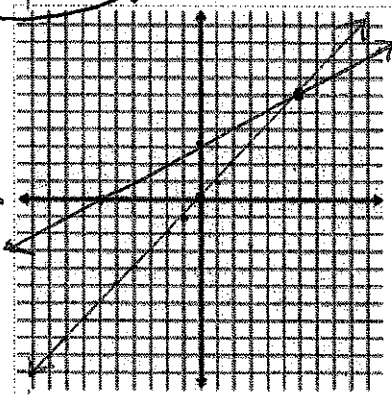
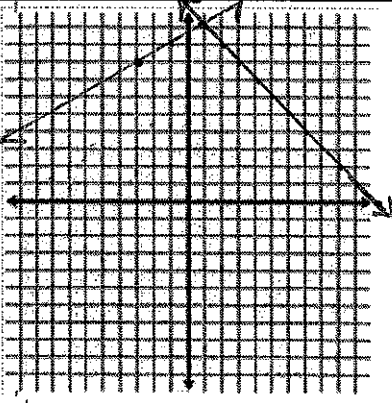
Date: 2/5

Period: 1/4

Solving Systems of Linear Equations by multiple methods- Notes

Solve for y ☺

Solve for a Variable ☹☹

<p>Solve by using Elimination.</p> $\begin{array}{r} -4x - 2y = -12 \\ + \quad 4x + 4y = 0 \\ \hline 0 + 2y = -12 \\ 2y = -12 \\ y = -6 \end{array}$ $\begin{array}{r} -4x - 2(-6) = -12 \\ -4x + 12 = -12 \\ -4x = -24 \\ x = 6 \end{array}$	<p>Solve by Graphing.</p> $\begin{array}{l} -4x - 2y = -12 \\ -2y = 4x - 12 \\ y = -2x + 6 \end{array}$ $\begin{array}{l} 4x + 4y = 0 \\ 4y = -4x \\ y = -x \end{array}$ $\begin{array}{l} y = -2x + 6 \\ y = -x \end{array}$ 	<p>Solve by using Substitution.</p> $\begin{array}{l} -4x - 2y = -12 \text{ and } y = -x \\ -4x - 2(-x) = -12 \\ -4x + 2x = -12 \\ -2x = -12 \\ x = 6 \end{array}$ $\begin{array}{l} -4(6) - 2y = -12, \text{ so} \\ -24 - 2y = -12 \\ -2y = 12 \\ y = -6 \end{array}$								
<p>Solution: $(6, -6)$</p> <p>Solve by using Elimination.</p> $\begin{array}{r} x - y = 11 \\ + \quad 2x + y = 19 \\ \hline 3x + 0 = 30 \\ 3x = 30 \\ x = 10 \end{array}$ $\begin{array}{l} x - y = 11, \text{ so} \\ 10 - y = 11 \\ -y = 1 \\ y = -1 \end{array}$	<p>Solution: $(6, -6)$</p> <p>Solve by Graphing.</p> $\begin{array}{l} x - y = 11 \\ -y = -x + 11 \\ y = x - 11 \end{array}$ $\begin{array}{l} 2x + y = 19 \\ y = -2x + 19 \end{array}$ $\begin{array}{l} y = x - 11 \\ y = -2x + 19 \end{array}$ 	<p>Solution: $(6, -6)$</p> <p>Solve by using Substitution.</p> $\begin{array}{l} x - y = 11 \text{ and } y = x - 11, \text{ so...} \\ x - (x - 11) = 11 \\ x - x + 11 = 11 \cdot 11 = 11 \checkmark \\ x - (x - 2x + 19) = 11 \\ x + 2x - 19 = 11 \\ 3x - 19 = 11 \\ 3x = 30 \\ x = 10 \end{array}$								
<p>Solution: $(10, -1)$</p> <p>Graphing slope intercept</p>	<p>Solution: $(10, -1)$</p> <p>Graphing</p> <table border="1" data-bbox="1421 777 1567 892"> <thead> <tr> <th>x</th> <th>y</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>17</td> </tr> <tr> <td>2</td> <td>15</td> </tr> <tr> <td>3</td> <td>3</td> </tr> </tbody> </table>	x	y	1	17	2	15	3	3	<p>Solution: $(10, -1)$</p>
x	y									
1	17									
2	15									
3	3									

Name: _____

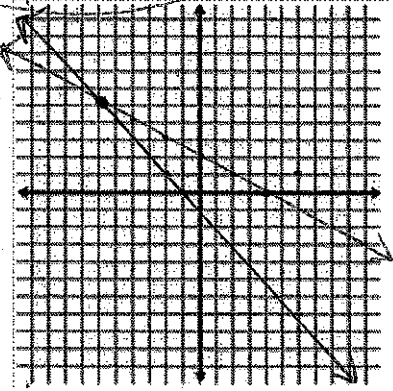
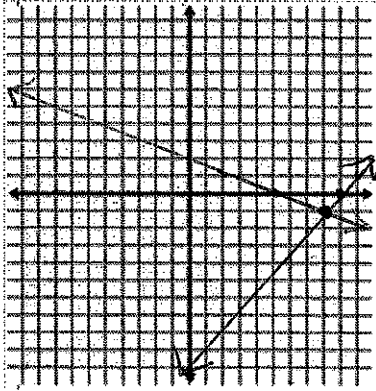
Date: _____

Period: _____

Solving Systems of Linear Equations by multiple methods- Notes

Solve for y.

Solve for variables; Substitute

<p>Solve by using Elimination.</p> $\begin{array}{r} -6x + 6y = 6 \\ + (-6x + 3y) = (-12) \quad -1 \\ \hline -6x + 6y = 6 \\ + 6x - 3y = 12 \\ \hline 0 + 3y = 18 \\ y = 6 \end{array}$ <p>... $(-6x + 3y) = (-12) \quad -1$</p> $\begin{array}{r} -6x + 6y = 6 \\ -6x + 6(6) = 6 \\ -6x + 36 = 6 \\ -6x = -30 \\ x = 5 \end{array}$	<p>Solve by Graphing.</p> $\begin{array}{r} -6x + 6y = 6 \\ 6y = 6x + 6 \\ y = x + 1 \end{array}$ $\begin{array}{r} -6x + 3y = -12 \\ 3y = 6x - 12 \\ y = 2x - 4 \end{array}$ $\frac{y = x + 1}{y = 2x - 4}$ 	<p>Solve by using Substitution.</p> $\begin{array}{r} -6x + 6y = 6 \text{ and } y = x + 1 \text{ so } \dots \\ -6x + 6(x + 1) = 6 \\ -6x + 6x + 6 = 6 \\ 0 + 6 = 6 \end{array}$ $\begin{array}{r} -6x + 6(2x - 4) = 6 \\ -6x + 12x - 24 = 6 \\ 6x - 24 = 6 \\ 6x = 30 \\ x = 5 \end{array}$ $\begin{array}{r} -6x + 6y = 6 \\ -6(5) + 6y = 6 \\ -30 + 6y = 6 \\ 6y = 36 \\ y = 6 \end{array}$
<p>Solution: $(5, 6)$</p> <p>Solve by using Elimination.</p> $\begin{array}{r} x + y = -9 \\ + (-3x + y) = (-5) \quad -1 \\ \hline x + y = -9 \\ -3x + y = -5 \\ \hline 4x + 0 = -4 \\ 4x = -4 \\ x = -1 \end{array}$ $\begin{array}{r} x + y = -9 \\ -1 + y = -9 \\ y = -8 \end{array}$	<p>Solution: $(5, 6)$</p> <p>Solve by Graphing.</p> $\begin{array}{r} x + y = -9 \\ y = -x - 9 \end{array}$ $\begin{array}{r} -3x + y = -5 \\ y = 3x - 5 \end{array}$ $\frac{y = -x - 9}{y = 3x - 5}$ 	<p>Solution: $(5, 6)$</p> <p>Solve by using Substitution.</p> $\begin{array}{r} x + y = -9 \text{ and } y = 3x - 5 \\ x + (3x - 5) = -9 \\ 4x - 5 = -9 \\ 4x = -4 \\ x = -1 \end{array}$ $\begin{array}{r} x + y = -9 \text{ so } \\ -1 + y = -9 \\ y = -8 \end{array}$
<p>Solution: $(-1, -8)$</p>	<p>Solution: $(-1, -8)$</p>	<p>Solution: $(-1, -8)$</p>