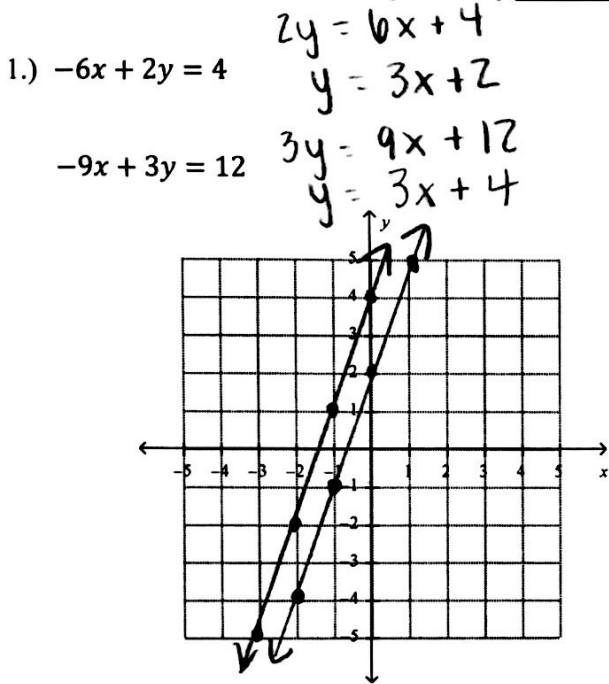


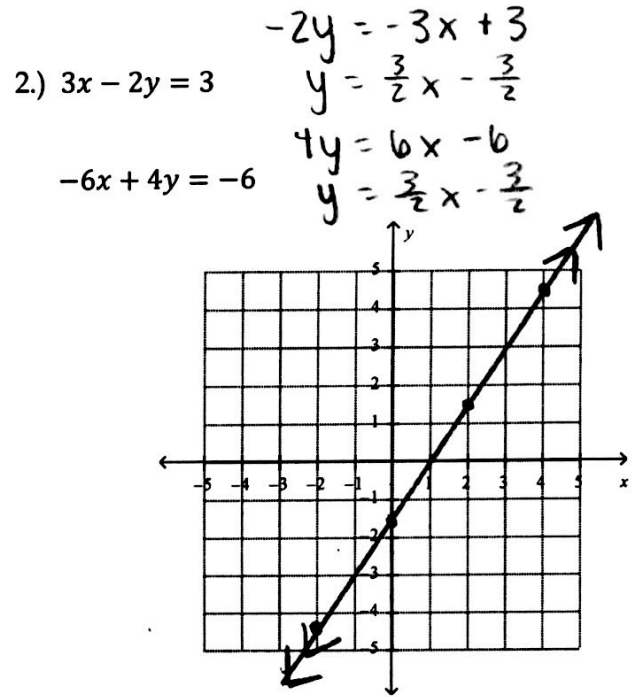
Chapter 7.5 – 7.6 Quiz Review Packet

Name: KEY

In #1 and #2, solve the linear system by GRAPHING.



1.) **NO SOLUTION**



2.) **Infinitely Many Solutions**

In #3 – 6, solve the linear system using substitution OR elimination.

3.) $-x + 4y = -20$

Handwritten work:
 $3x - 12y = 48$
 $-3x + 12y = -60$

 $0 \neq -12$

Handwritten work:
 $-x = -4y - 20$
 $x = 4y + 20$

Handwritten work:
 $3(4y + 20) - 12y = 48$
 $12y + 60 - 12y = 48$
 $60 \neq 48$

3.) **NO SOLUTION**

In #3 - #6, solve the linear system using substitution OR elimination.

4.) $(2x + y = 4)$

$y = -2x + 4$

$-4x - 2(-2x + 4) = -8$
 $-4x + 4x - 8 = -8$
 $-8 = -8 \checkmark$

$\begin{array}{r} -4x - 2y = -8 \\ + \quad 4x + 2y = 8 \\ \hline 0 = 0 \checkmark \end{array}$

4.) Infinitely Many Solutions

5.) $-4x + y = -8$

$2(2x - 2y = -14)$

$-4x + 12 = -8$
 $-4x = -20$
 $x = 5$

check:
 $-4(5) + (12) = -8$
 $-8 = -8 \checkmark$
 $2(5) - 2(12) = -14$
 $-14 = -14 \checkmark$

$\begin{array}{r} 4x - 4y = -28 \\ + \quad -4x + y = -8 \\ \hline -3y = -36 \\ \hline \span style="border: 1px solid black; padding: 2px;"> $y = 12$ \end{array}$

5.) (5, 12)

6.) $-6x + 2y = -2$

$2(-4x - y = 8)$

$-4(-1) - y = 8$
 $4 - y = 8$
 $-y = 4$
 $y = -4$

check:
 $-6(-1) + 2(-4) = -2$
 $-2 = -2 \checkmark$
 $-4(-1) - (-4) = 8$
 $8 = 8 \checkmark$

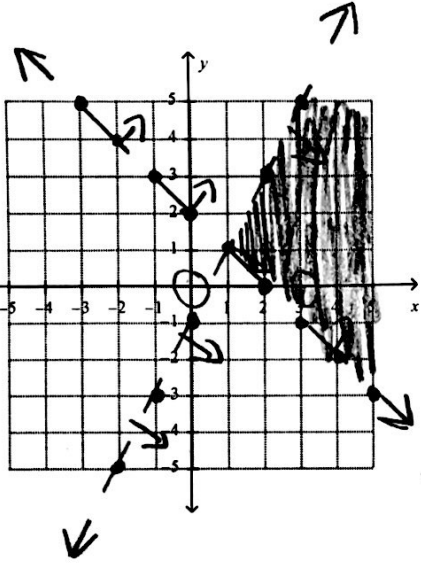
$\begin{array}{r} -8x - 2y = 16 \\ + \quad -6x + 2y = -2 \\ \hline -14x = 14 \\ \hline \span style="border: 1px solid black; padding: 2px;"> $x = -1$ \end{array}$

6.) (-1, -4)

In #7 - #9, graph the system of linear inequalities (Make sure to darken your solution!).

7.) $y < 2x - 1$

$y > -x + 2$



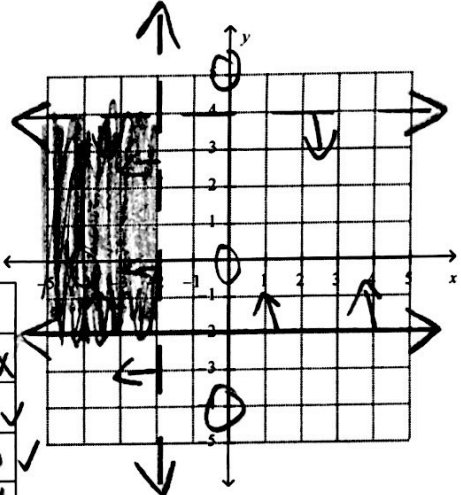
Test:

$y < 2x - 1$	0	0	x	0	$0 < 2(0) - 1$
	3	0	✓	0	$0 < 2(3) - 1$
	0	0	x	0	$0 > 0 + 2$
	3	0	✓	0	$0 > 2$
					$0 > -3 + 2$
					$0 > -1$

8.) $x < -2$

$y \geq -2$

$y < 4$



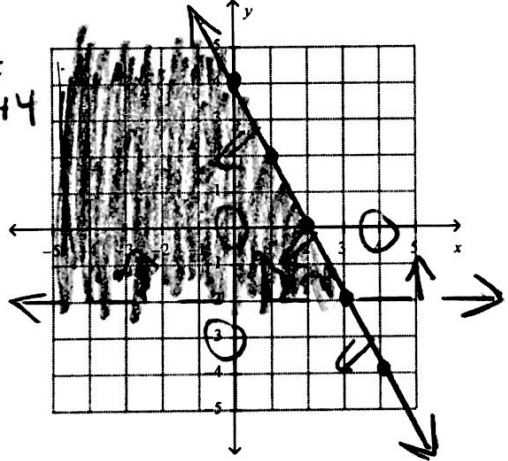
Test:

$x < -2$	0	0	x	
	-4	0	✓	
$y \geq -2$	0	0	✓	
	0	-4	x	
$y < 4$	0	0	✓	
	0	5	x	

9.) $y > -2$

$y \leq 4 - 2x$

$y \leq -2x + 4$



Test:

$y > -2$	0	0	✓
	0	-3	x
	0	0	✓
	4	0	x