

$$\begin{array}{r} 10) \quad 2x - 5 = y \\ + \quad x - 7 = -y \\ \hline \end{array}$$

$$\begin{array}{r} 3x - 12 = 0 \\ +12 \quad +12 \end{array}$$

$$3x = 12$$

$$\begin{array}{r} 6) \quad y = 5x + 1 \rightarrow \\ + \quad 2y = -5x + 2 \\ \hline \end{array}$$

$$\begin{array}{r} 3y = 3 \\ \hline 3 \\ y = 1 \end{array}$$

$$\begin{array}{r} 1 = 5x + 1 \\ -1 \quad \quad -1 \end{array}$$

$$\begin{array}{r} 0 = 5x \\ \hline 5 \\ x = 0 \end{array}$$

67)

$$-6x - 5y = 28 \rightarrow -6(2y+1) - 5y = 28$$

$$\begin{array}{r} x - 2y = 1 \\ +2y \quad +2y \end{array}$$

$$\bullet x = 2y + 1$$

$$-12y - 6 - 5y = 28$$

$$-17y - 6 - 24$$

$$+6 + 6$$

$$-17y = 34$$

71)

$$\frac{3}{5}b - a = 0 \rightarrow$$

$$1 + b = 2a$$

$$\bullet b = 2a - 1$$

$$\frac{3}{5}(2a-1) - a = 0$$

$$\frac{6}{5}a - \frac{3}{5} - a = 0$$

$$\frac{1}{5}a - \frac{3}{5} = 0$$

$$+ \frac{3}{5} \quad + \frac{3}{5}$$

$$5 \cdot \frac{1}{5}a = \frac{3}{5} \cdot 5$$

$$a = 3$$

Self Scoring Scale

4- I can *summarize* the concepts and explain it to others.

3- I can *apply* the concepts to answer questions correctly.

2- I can *apply* the concepts but with some *mistakes*.

1- I *need help* to know how to apply the concepts.

0- I *can't* apply the concepts even with help.

7.1-7.2 Quiz *Was out of 25pts

A - 22.5

B - 20

C - 17.5

D - 15

7.3 Solving by Linear Combinations (multiply one equation first)

Goals: • Use linear combinations to solve a system of linear equations.

EQ: What do we need to have before you can add the equations together?

The Unit Organizer NAME _____
DATE _____

④ BIGGER PICTURE Algebra 1.5

② LAST UNIT/Experience Inequalities	① CURRENT UNIT Systems	③ NEXT UNIT/Experience Exponents
⑧ Student Activities or Assignments	⑤ UNIT MAP	
7.1 7.2 7.3 7.4 7.5 7.6	<p style="text-align: center;"> 1. Using addition 2. Using multiplication first 3. Arranging like terms first </p>	
⑦ UNIT SELF-TEST QUESTIONS	1. How do you solve a system by graphing? 2. How is the substitution method used to solve a system? 3. How do you use linear combinations to solve a system? 4. How can you represent and solve a real world situation with a system of equations? 5. How do you determine the number of solutions a system has? 6. How do you graph a system of linear inequalities and determine the solution area?	⑨ RELATIONSHIPS UNIT Solve Graph Represent Apply

Use linear combinations to solve the system of linear equations. Then check your solution.

1) $-2(7x + y = 2) \rightarrow -14x - 2y = -4$
 $5x + 2y = 4$

$$\begin{array}{r} -14x - 2y = -4 \\ + \quad 5x + 2y = 4 \\ \hline -9x = 0 \\ \frac{-9x}{-9} = \frac{0}{-9} \\ x = 0 \end{array}$$

$7(0) + y = 2$
 $y = 2$

$(0, 2)$ $5(0) + 2(2) = 4$
 $4 = 4 \checkmark$

\therefore Yes, $(0, 2)$ is soln

2) $4x + 3y = -6$
 $-1(7x + 3y = -15) \rightarrow -7x - 3y = 15$

$$\begin{array}{r} 4x + 3y = -6 \\ + \quad -7x - 3y = 15 \\ \hline -3x = 9 \\ \frac{-3x}{-3} = \frac{9}{-3} \\ x = -3 \end{array}$$

$7(-3) + 3y = -15$
 $-21 + 3y = -15$
 $+21 \quad +21$
 $3y = 6$
 $\frac{3y}{3} = \frac{6}{3}$
 $y = 2$

$(-3, 2)$
 $4(-3) + 3(2) = -6$
 $-12 + 6 = -6 \checkmark$

\therefore Yes, $(-3, 2)$ is soln

$$5) \quad x + 3y = 3$$

$$x + 6y = 3$$

$$6) \quad 9x - 3y = 20$$

$$3x + 6y = 2$$

Summary

EQ: What do we need to have before you can add the equations together?

- * Need opposite terms
- * If not, multiply an eqn

7.3 Homework

#1, 3-5, 7, 10-12
on Linear Combinations wkst