

Today's Plan:

Learning Target (standard): I will solve a linear system using the substitution method. I will describe the type of system and its solution.

Students will: Complete practice problems over previous concepts at the boards, put up homework problems on the board and make necessary corrections to their own work, take notes over new material and complete practice problems over new concepts.

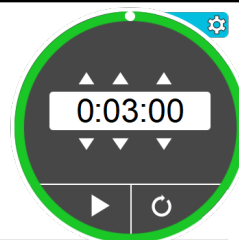
Teacher will: Provide practice problems over previous concepts, check homework problems for accuracy and provide students feedback, describe and provide examples of new concepts and assign students assessment problems over new concepts.

Assessment: Board work, homework check and homework assignment

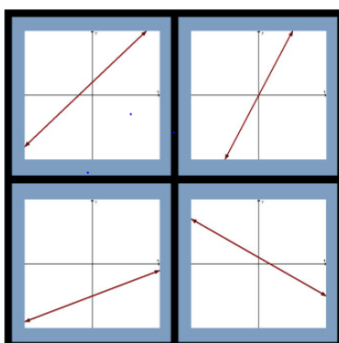
Differentiation: Students will work at the board, go over and correct homework at their seats, actively engage in lecture over new concepts, practice new concepts with the aid of other students and the teacher and complete homework assignment.

Which One Doesn't Belong:

- Justify which one doesn't belong within each group of 4.



9	16
25	43



$y = 4x$	$y = x + 7$
$y = -2x + 4$	$y = 3x - 1$

Solve by substitution.

$$6) 5x + 2y = -13$$

$$-2x - 3y = 14$$

$$-2x = 3y + 14$$

$$x = -\frac{3}{2}y - 7$$

independent
 $(-1, -4)$

$$5\left(-\frac{3}{2}y - 7\right) + 2y = -13$$

$$-\frac{15}{2}y - 35 + 2y = -13$$

$$2\left[-\frac{15}{2}y + 2y = 22\right]$$

$$-15y + 4y = 44$$

$$-11y = 44$$

$$x = -\frac{3}{2}(-4) - 7$$

$$y = -4$$

$$x = 6 - 7$$

Solve by substitution.

$$-3x - y = -5$$

$$7x - 3y = 1$$

$$-y = 3x - 5$$

$$y = -3x + 5$$

$$7x - 3(-3x + 5) = 1$$

$$7x + 9x - 15 = 1$$

$$16x - 15 = 1$$

$$16x = 16$$

$$x = 1$$

$$y = -3(1) + 5$$

$$y = -3 + 5$$

$$y = 2$$

independent
 $(1, 2)$

Solve by substitution.

$$-4x - 5y = -4$$

$$-4x - 8y = -4$$

$$-4x = 8y - 4$$

$$x = -2y + 1$$

$$-4(-2y + 1) - 5y = -4$$

$$8y - 4 - 5y = -4$$

$$3y - 4 = -4$$

$$3y = 0$$

$$y = 0$$

independent
(1, 0)

$$x = -2(0) + 1$$

$$x = 1$$

Solve using the graphing method.

$$\textcircled{1} x - 3y = -3 \quad -3y = -x - 3$$

$$\textcircled{2} 5x - 3y = 9 \quad y = \frac{1}{3}x + 1$$

$$-3y = -5x + 9 \quad m = \frac{1}{3}$$

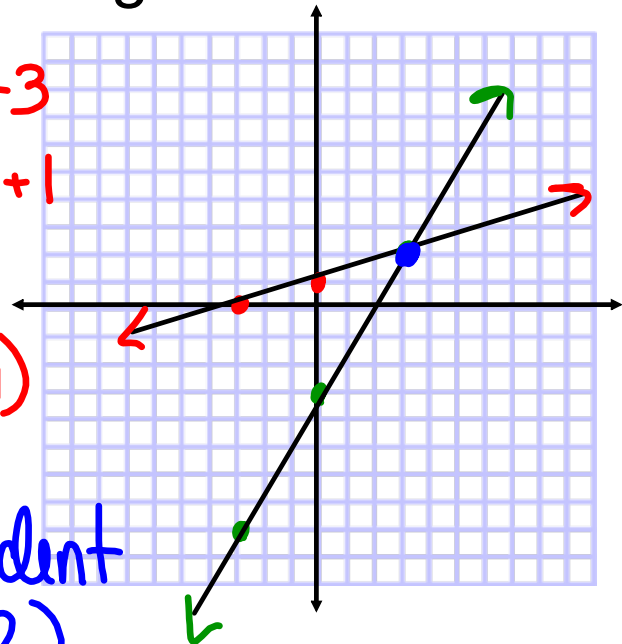
$$y = \frac{5}{3}x - 3$$

$$m = \frac{5}{3}$$

$$I_y: (0, -3)$$

$$I_y: (0, 1)$$

independent
(3, 2)



Solve by substitution.

$$3x - 4y = 13$$

$$7x + 7y = 14$$

$$7x = -7y + 14$$

$$x = -y + 2$$

$$3(-y + 2) - 4y = 13$$

$$-3y + 6 - 4y = 13$$

$$-7y + 6 = 13$$

$$-7y = 7$$

$$y = -1$$

independent

$$x = -(-1) + 2$$

$$x = 1 + 2$$

$$x = 3$$

$$(3, -1)$$

Solve by substitution.

$$4x - 3y = 9$$

$$3x - 3y = 9$$

$$3x = 3y + 9$$

$$x = y + 3$$

$$4(y + 3) - 3y = 9$$

$$4y + 12 - 3y = 9$$

$$y + 12 = 9$$

$$y = -3$$

independent

$$x = -3 + 3$$

$$x = 0$$

$$(0, -3)$$

Solve using the graphing method.

$$\textcircled{1} x + y = 1 \quad y = -x + 1$$

$$\textcircled{2} x - 2y = 4 \quad m = -1$$

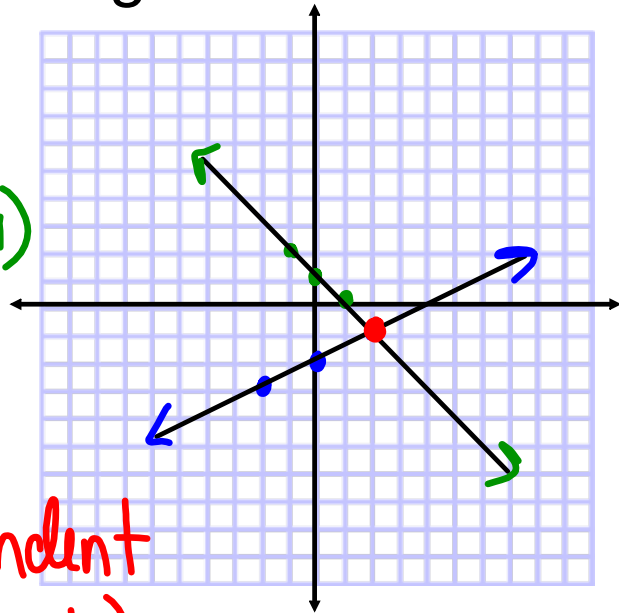
$$-2y = -x + 4$$

$$y = \frac{1}{2}x - 2$$

$$m = \frac{1}{2}$$

$$I_y: (0, -2)$$

independent
(2, -1)



Solve the system using the substitution method.

$$x - 3y = -3 \quad \boxed{x = 3y - 3} \quad x = 3(2) - 3$$

$$\textcircled{5} x - 3y = 9$$

$$5(3y - 3) - 3y = 9$$

$$15y - 15 - 3y = 9$$

$$12y - 15 = 9$$

$$12y = 24$$

$$y = 2$$

independent
(3, 2)

Solve by substitution.

$$4x - 5y = -23$$

$$-3x + 6y = 15$$

$$-3x = -6y + 15$$

$$x = 2y - 5$$

$$4(2y - 5) - 5y = -23$$

$$8y - 20 - 5y = -23$$

$$3y - 20 = -23$$

$$3y = -3$$

$$y = -1$$

independent $x = 2(-1) - 5$
 $(-7, -1)$ $x = -2 - 5$
 $x = -7$

Assignment:

Graphing & Substitution Methods 1

#2-14 even, 11