

**TRS 92: Solving Linear Systems**

1. Which of the following coordinates is the solution to the system?

$$x + y = 3$$

$$2x - y = 6$$

Coordinate	Work	Yes or No
(-2, 4)		
(-3, -12)		
(3, 0)		

***Substitution Method***

Step 1: Choose one equation

Step 2: Isolate for one variable in that equation

Step 3: Substitute new equation into second equation

Step 4: Solve for the only unknown

Step 5: Substitute value for found variable into second equation

Step 6: Solve for second variable

Step 7: Write an ordered pair of the two found values

Step 8: Check your ordered pair

2.

$$x = 2y - 4$$

$$-4x + y = 2$$

3.

$$x = 4 - 3y$$

$$x = 2y + 6.5$$

**Elimination Method**

Step 1: Look at the equations and choose a variable to eliminate

Step 2: Multiply by a factor if necessary to get opposite coefficients

Step 3: Add the two equations together

Step 4: Solve for the only unknown

Step 5: Substitute value for found variable into second equation

Step 6: Solve for second variable

Step 7: Write an ordered pair of the two found values

Step 8: Check your ordered pair

4.

$$7x + 2y = 10$$

$$-7x + y = -16$$

5.

$$-4x + 2y = 10$$

$$2x + y = -18$$

6.

$$5x - 7y = 24$$

$$3x - 5y = 16$$