

Solving Systems of Equations by Substitution

Solve each system by substitution.

$$1) \begin{cases} y = 6x - 11 \\ -2x - 3y = -7 \end{cases}$$

$$(2, 1)$$

$$2) \begin{cases} 2x - 3y = -1 \\ y = x - 1 \end{cases}$$

$$(4, 3)$$

$$3) \begin{cases} y = -3x + 5 \\ 5x - 4y = -3 \end{cases}$$

$$(1, 2)$$

$$4) \begin{cases} -3x - 3y = 3 \\ y = -5x - 17 \end{cases}$$

$$(-4, 3)$$

$$5) \begin{cases} y = -2 \\ 4x - 3y = 18 \end{cases}$$

$$(3, -2)$$

$$6) \begin{cases} y = 5x - 7 \\ -3x - 2y = -12 \end{cases}$$

$$(2, 3)$$

$$7) \begin{cases} -4x + y = 6 \\ -5x - y = 21 \end{cases} \quad y = 4x + 6$$

$$(-3, -6)$$

$$8) \begin{cases} -7x - 2y = -13 \\ x - 2y = 11 \end{cases} \quad x = 2y + 11$$

$$(3, -4)$$

$$9) \begin{cases} -5x + y = -2 \\ -3x + 6y = -12 \end{cases} \quad y = 5x - 2$$

$$(0, -2)$$

$$10) \begin{cases} -5x + y = -3 \\ 3x - 8y = 24 \end{cases} \quad y = 5x - 3$$

$$(0, 3)$$

* I helped set problems up, gave answer, YOU find your mistakes!
* Check your answers in calculator! * (if any :))

$$11) \begin{cases} x+3y=1 \\ -3x-3y=-15 \end{cases} \quad x = -3y+1$$

$$(7, -2)$$

$$12) \begin{cases} -3x-8y=20 \\ -5x+y=19 \end{cases} \quad y = 5x+19$$

$$(-4, -1)$$

$$13) \begin{cases} -3x+3y=4 \\ x+y=3 \end{cases} \quad y = x+3$$

$$-3x+3(x+3)=4$$

$$-3x+3x+9=4$$

$$0x+9=4$$

$$-9 \quad -9$$

$$0 = -5 \text{ False}$$

NO
Solution

$$(-3, -2)$$

$$14) \begin{cases} -3x+3y=3 \\ -5x+y=13 \end{cases} \quad y = 5x+13$$

$$15) \begin{cases} 6x+6y=-6 \\ -5x+y=13 \end{cases} \quad y = 5x-13$$

$$(-3, 2)$$

$$16) \begin{cases} 2x+y=20 \\ 6x-5y=12 \end{cases} \quad y = -2x+20$$

$$(7, 6)$$

* I helped you with isolating variables and gave you the solutions...

YOUR JOB is to find any mistakes you made if you got the incorrect solution.