

UNIT 5 DAY 19 HOMEWORK - UNIT 5 REVIEW!

NAME:

1. Is the ordered pair a solution to the system?

$$\begin{aligned} (-1, 5) \\ 3x + 6y = 27 \\ 2x + 4y = 22 \end{aligned}$$

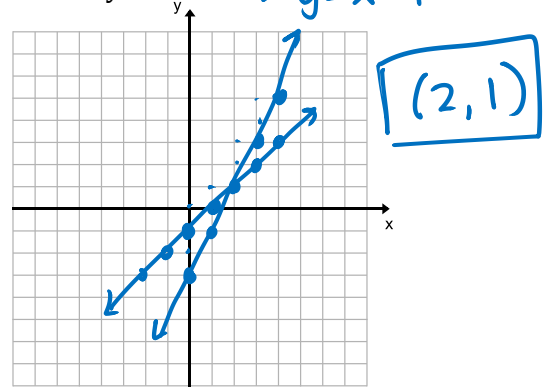
NOT A SOLUTION  
:(

$$\begin{aligned} 3(-1) + 6(5) &= 27 \\ -3 + 30 &= 27 \\ 27 &= 27 \checkmark \end{aligned}$$

$$\begin{aligned} 2(-1) + 4(5) &= 22 \\ -2 + 20 &= 22 \\ 18 &= 22 \text{ X} \end{aligned}$$

2. Solve the system by GRAPHING:

$$\begin{aligned} y &= 2x - 3 \\ y - x &= -1 \Rightarrow y = x - 1 \end{aligned}$$



3. Solve the system by substitution:

$$\begin{aligned} x - 2y &= 10 \\ y &= -6x + 8 \end{aligned}$$

$$\begin{aligned} 2 - 2y &= 10 \\ -2y &= 8 \\ y &= -4 \end{aligned}$$

$$x - 2(-6x + 8) = 10$$

$$x + 12x - 16 = 10$$

$$13x = 26$$

$$x = 2$$

$$(2, -4)$$

4. Solve the system by ELIMINATION:

$$\begin{aligned} -3(2x + 6y = 4) &\Rightarrow -6x - 18y = -12 \\ 2(3x - 7y = 6) &\Rightarrow +6x - 14y = 12 \end{aligned}$$

$$3x - 7(0) = 6$$

$$3x = 6$$

$$x = 2$$

$$(2, 0)$$

5. Solve the system using ANY method!

$$\begin{aligned} 3x + y = 6 &\Rightarrow 3x + y = 6 \\ -1(x + y = -2) &\Rightarrow +x - y = 2 \end{aligned}$$

$$-2 + y = -2$$

$$y = 0$$

$$4x = 8$$

$$x = 2$$

$$(2, 0)$$

6. Tell whether the system has all solutions, no solution or one solution.

$$\begin{aligned} 2x + 2y &= 4 \\ y &= -x + 2 \end{aligned}$$

$$2x + 2(-x + 2) = 4$$

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

$$4 = 4$$

All Solutions

7. You are in charge of buying soda for you and your 17 soccer teammates. You can buy cans of Coke for \$0.75 each and bottles of Mountain Dew for \$1.00 each. You want to spend all of the \$15.00 that you have. How many of each type of soda should you buy?

x = COKE y = Mountain Dew

$$0.75x + 1y = 15.00 \Rightarrow .75x + y = 15.00$$

$$-1(x + y = 18) \Rightarrow +x - y = -18$$

$$12 + y = 18$$

$$y = 6$$

$$-.25x = -3$$

$$x = 12$$

You bought 12 cokes and 6 Mountain Dew

