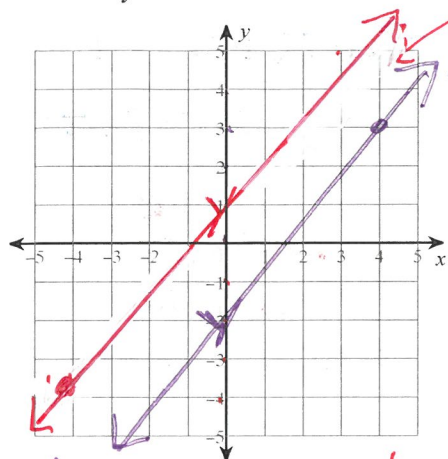


7.5cs Practice "Special Cases" [2025]

Date 2025 Key Period _____

Solve the system by graphing. Clearly show your work putting equations into "y=mx+b"

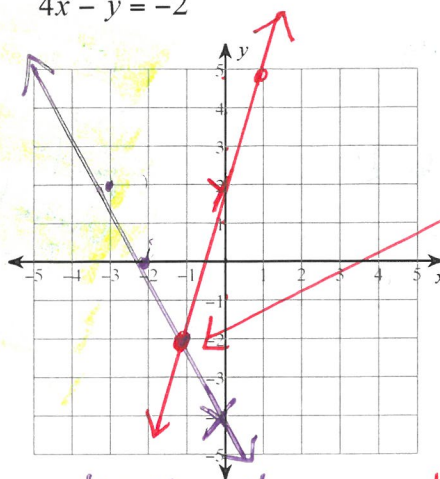
1) $5x - 4y = 8$
 $5x - 4y = -4$

NO
SOLUTION

$$\begin{array}{r} 5x - 4y = 8 \\ -5x \quad -5x \\ \hline -4y = -5x + 8 \\ -4 \quad -4 \quad -4 \\ \hline y = \frac{5}{4}x - 2 \end{array}$$

$$\begin{array}{r} 5x - 4y = -4 \\ -5x \quad -5x \\ \hline -4y = -5x - 4 \\ -4 \quad -4 \quad -4 \\ \hline y = \frac{5}{4}x + 1 \end{array}$$

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



(-1, -2)

$$\begin{array}{r} 2x + y = -4 \\ -2x \quad -2x \\ \hline y = -2x - 4 \end{array}$$

$$C: 2(-1) + (-2) = -4$$

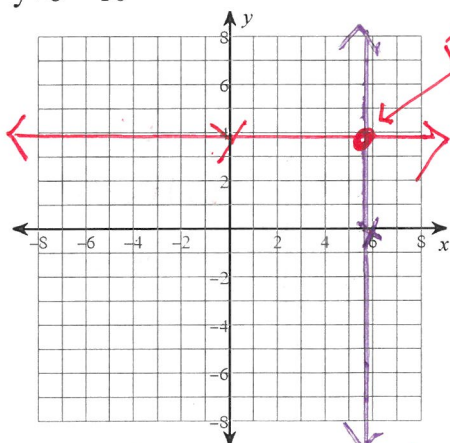
$$-4 = -4 \checkmark$$

$$\begin{array}{r} 4x - y = -2 \\ -4x \quad -4x \\ \hline -y = -4x - 2 \\ -1 \quad -1 \quad -1 \\ \hline y = 4x + 2 \end{array}$$

$$\begin{array}{r} -y = -4x - 2 \\ -1 \quad -1 \quad -1 \\ \hline y = 4x + 2 \end{array}$$

$$C: 4(-1) - (-2) = -$$

3) $-x = -6$
 $y + 6 = 10$



(6, 4)

$$\begin{array}{r} -x = -6 \\ -1 \quad -1 \\ \hline x = 6 \end{array}$$

$$C: -(6) = -6$$

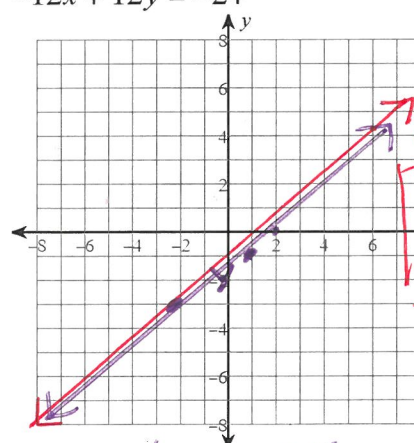
$$-6 = -6 \checkmark$$

$$\begin{array}{r} y + 6 = 10 \\ -6 \quad -6 \\ \hline y = 4 \end{array}$$

$$C: 4 + 6 = 10$$

$$10 = 10 \checkmark$$

4) $8x - 8y = 16$
 $-12x + 12y = -24$

INFINITE
SOLUTIONS

$$\begin{array}{r} 8x - 8y = 16 \\ -8x \quad -8x \\ \hline -8y = -8x + 16 \\ -8 \quad -8 \quad -8 \\ \hline y = x - 2 \end{array}$$

$$y = x - 2$$

$$\begin{array}{r} -12x + 12y = -24 \\ +12x \quad +12x \\ \hline 12y = 12x - 24 \\ 12 \quad 12 \quad 12 \\ \hline y = x - 2 \end{array}$$

$$y = x - 2$$

same line

Solve each system by SUBSTITUTION. Calculator check recommended.

5) $-8x - y = 6$
 $y = -8x + 8$

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

$$-8x + 8x - 8 = 6$$

$$-8 \neq 6 \text{ (F)}$$

NO SOLUTION

6) $y = -5x - 21$
 $-5x - y = 21$

$$-5x - (-5x - 21) = 21$$

$$-5x + 5x + 21 = 21$$

$$21 = 21 \text{ (T)}$$

INFINITE SOLUTIONS

MUST show STEP That Variable Dropped OUT

Solve each system by ELIMINATION! Calculator check recommended.

7) $(4x - 24y = 4) \cdot 5 \rightarrow 20x - 120y = 20$
 $(-5x + 30y = 5) \cdot 4 \rightarrow -20x + 120y = 20$
 $0 \neq 20 \text{ (F)}$

NO SOLUTION

8) $9x - 7y = -26$
 $(9x - 7y = -26) \cdot (-1) \rightarrow -9x + 7y = 26$

$$9x - 7y = -26$$

$$-9x + 7y = 26$$

$$0 = 0 \text{ (T)}$$

INFINITE SOLUTIONS