Graphing Systems of Equations.

(1)

$$\begin{cases} y = 3x - 1 \\ y = -2x + 4 \end{cases}$$

Intersecting
-one solution
$(1, 2)$
$x \quad y$

$y = 3x - 1$
$2 = 3(1) - 1$
$2 = 3 - 1$
$2 = 2$
True

$y = -2x + 4$
$2 = -2(1) + 4$
$2 = -2 + 4$
$2 = 2$
True

We found the correct solution

(2)

$$\begin{cases} y = x - 3 \\ y = \frac{1}{7}x + 3 \end{cases}$$

Intersecting
-one
solution
$(7, 4)$

(3)
$$\begin{cases} y = x \\ 2x + y = \frac{3}{2} \end{cases}$$
$-2x \quad\quad -2x$

- need to solve this equation into $y = mx + b$

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

Intersecting - one solution $\left(\frac{1}{2}, \frac{1}{2}\right)$

(4)
$$\begin{cases} x - y = -\frac{3}{2} \\ -2x + 5y = -5 \end{cases}$$
$+y \quad\quad +y$; $+2x \quad\quad +2x$

need to solve these equations into $y = mx + b$

$$x = -\frac{3}{2} + y$$
$+3/2 \quad +3/2$

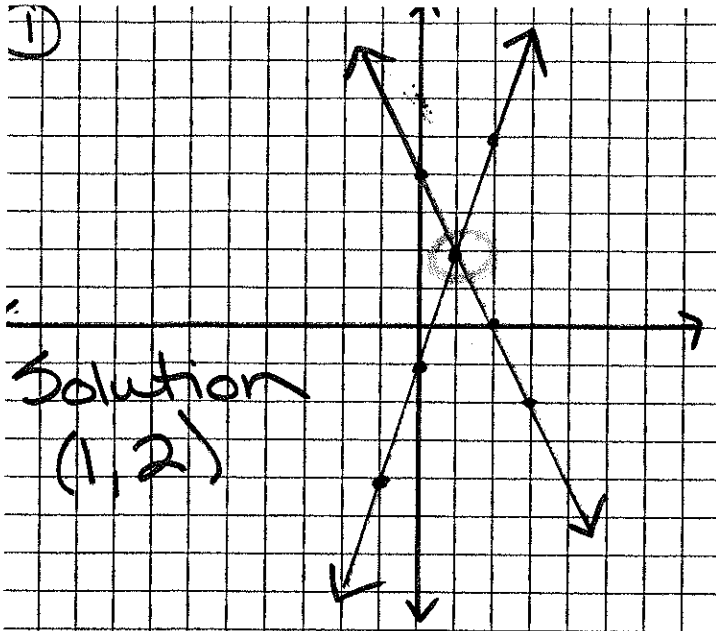
$$y = x + 1\frac{1}{2}$$

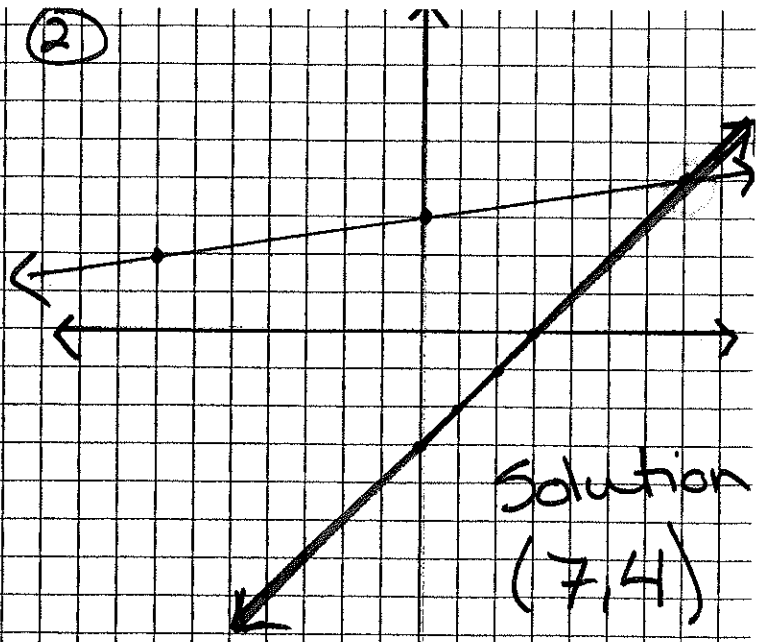
$$\frac{5y}{5} = \frac{2x}{5} - \frac{5}{5}$$

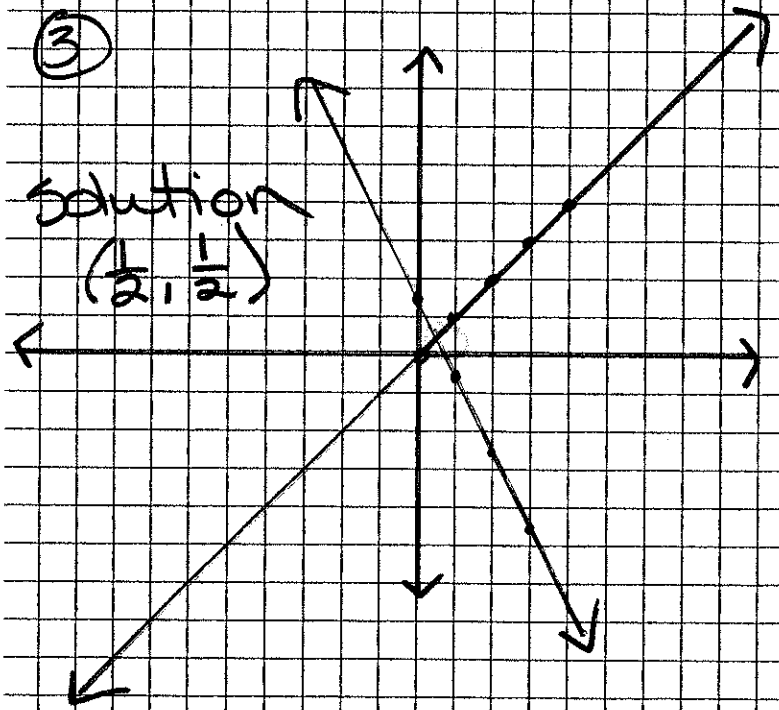
$$y = \frac{2}{5}x - 1$$

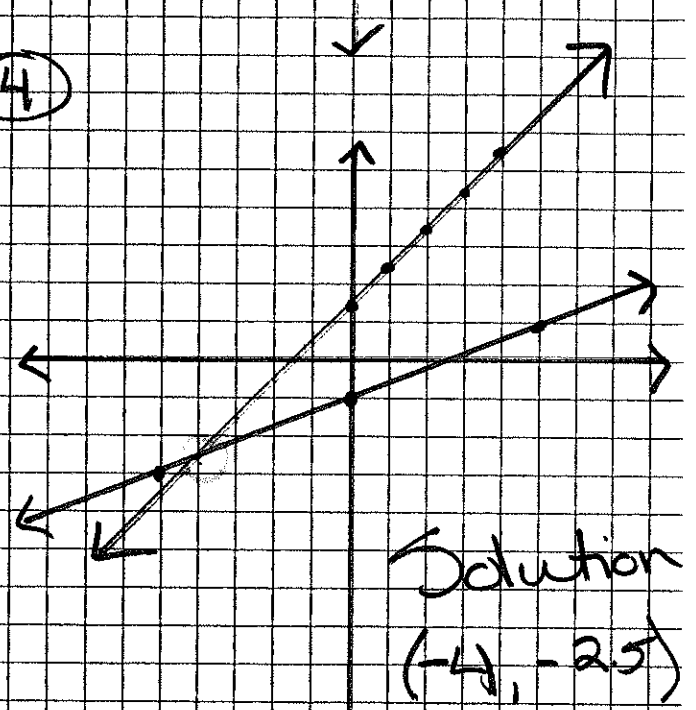
$$\begin{cases} y = x + 1\frac{1}{2} \\ y = \frac{2}{5}x - 1 \end{cases}$$

new system in $y = mx + b$


1)
Solution
(1, 2)


2)
Solution
(7, 4)


3)
Solution
$(\frac{1}{2}, \frac{1}{2})$


4)
Solution
(-4, -2.5)