

$$\textcircled{1} \textcircled{a} 2x + 3y \leq 25$$

$$x = \frac{25}{2}$$

$$y = \frac{25}{3}$$

$$\textcircled{b} 3x + 3y \geq 14$$

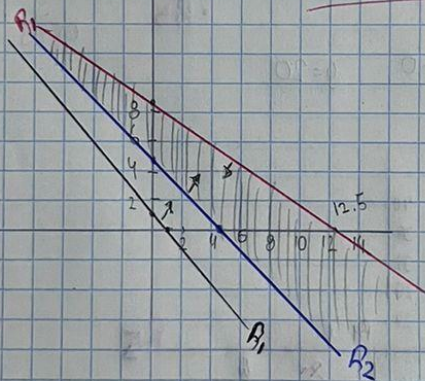
$$x = \frac{14}{3}$$

$$y = \frac{14}{3}$$

$$\textcircled{c} x + y \geq 1$$

$$x = 1 \quad y = 1$$

Si es convexa  
y tiene solución

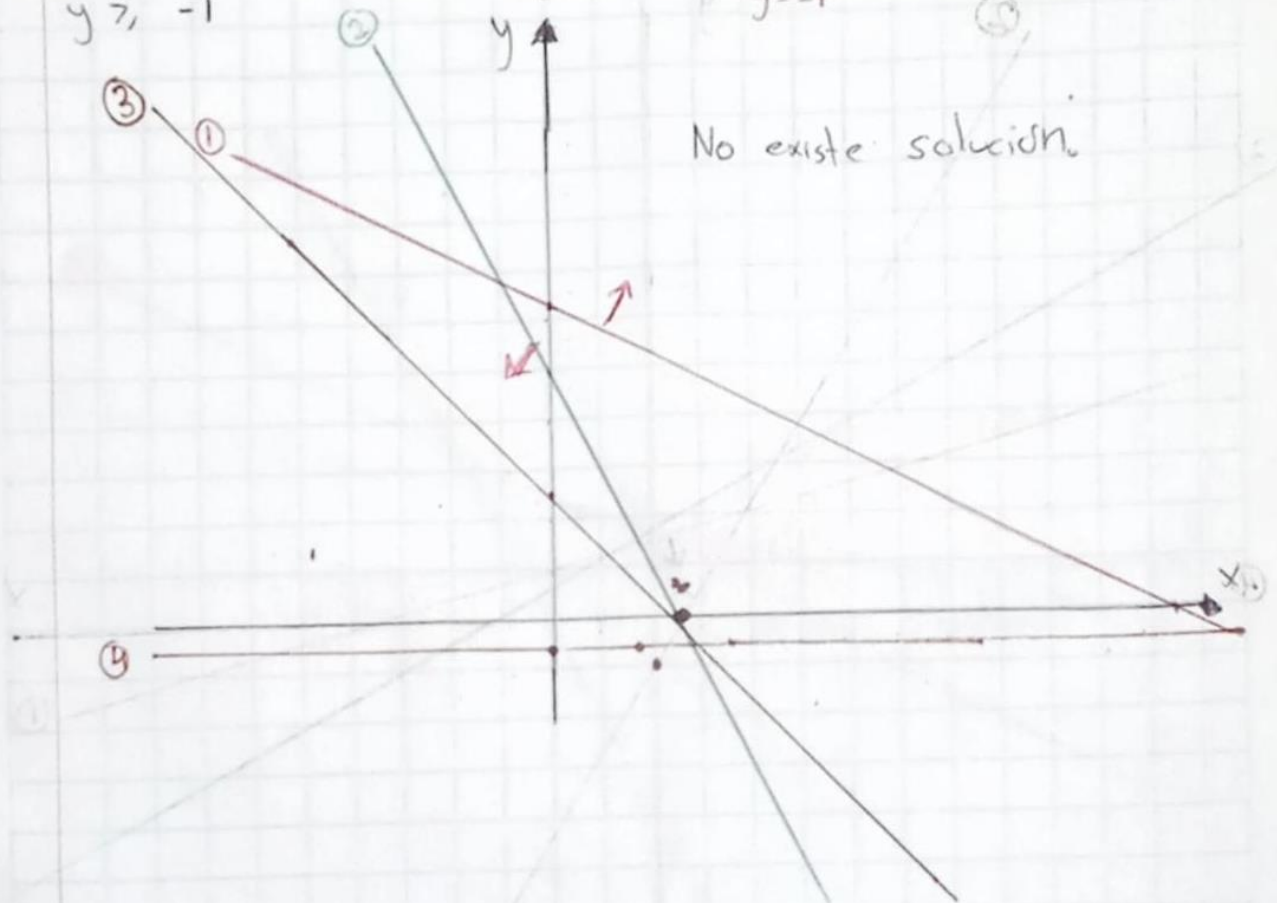


$$2. \begin{cases} x - 2y \leq 25 \\ 2x + y \geq 10 \\ x + y = 5 \\ y \geq -1 \end{cases}$$

$$\begin{aligned} x &= 25 \\ x &= 5 \\ x &= 5 \end{aligned}$$

$$\begin{aligned} y &= -\frac{25}{2} = -12.5 \\ y &= 10 \\ y &= 5 \\ y &= -1 \end{aligned}$$

No existe solución.



$$3. \quad x + 5y \leq 35$$

$$2x + y \geq -5$$

$$4x + 9y \geq 65$$

$$x \geq 0$$

$$x = 35$$

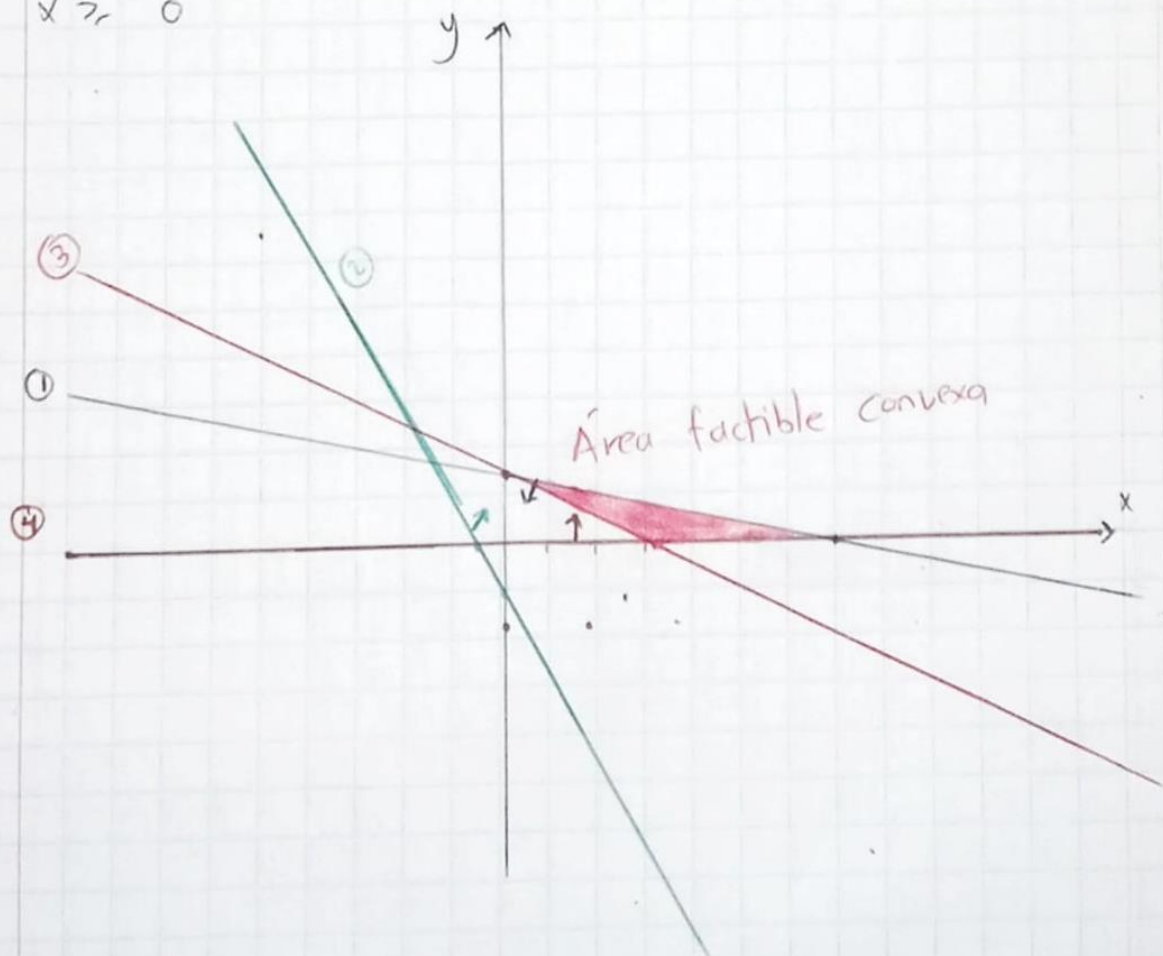
$$x = -5/2$$

$$x = 65/4$$

$$y = 7$$

$$y = -5$$

$$y = 65/9$$





4. a)  $x + y \leq 15$

b)  $x - y \geq 10$

c)  $2x + 5y \geq 35$

d)  $x \geq 0$

e)  $y \geq 0$

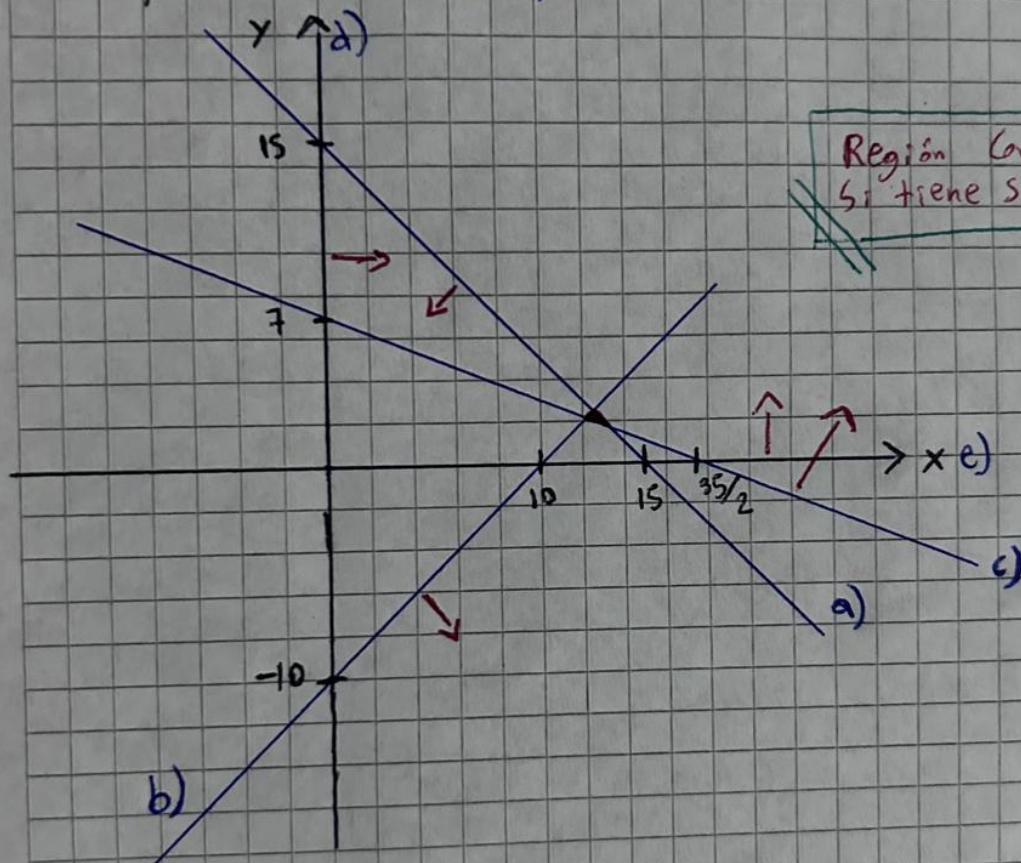
a)  $x = 15, y = 15$

b)  $x = 10, y = -10$

c)  $x = \frac{35}{2}, y = 7$

d)  $x \geq 0$

e)  $y \geq 0$



⑤ a)  $-3x + 4y \leq 40$  •  $R_1$

$x = -\frac{40}{3} = -13 \quad y = 10$

$0 \leq 40$  -  $R_1$

⑥  $-x - y \geq 30$

•  $R_2$

$0 \geq 30$  -  $R_2$

$x = -30 \quad y = -30$

✓ ⑦  $8x + 7y \leq 56$

•  $R_3$

$0 \leq 56$  -  $R_3$

$x = \frac{56}{8} = 7 \quad y = \frac{56}{7} = 8$

⑧  $x \geq 2$

•  $R_4$

$0 \geq 2$  -  $R_4$

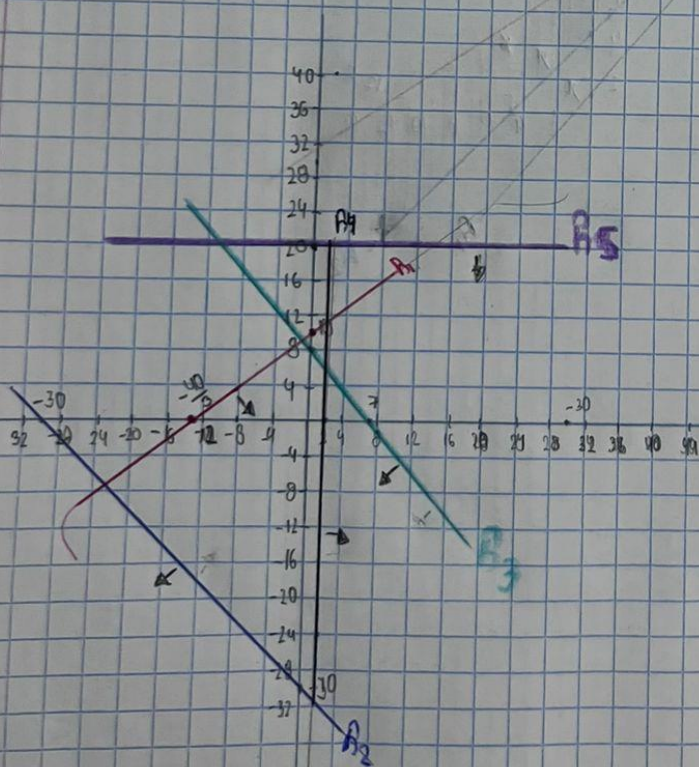
$x = 2 \quad y = 0$

✓ ⑨  $y \leq 20$

•  $R_5$

$0 \leq 20$  -  $R_5$

$x = 0 \quad y = 20$



No tiene solución //