

$$2) \begin{cases} 3x + y > 3 \\ 2x - y < 4 \end{cases}$$

$$\boxed{3x + y = 3}$$

$$x=0 \quad y=3$$

$$x=1 \quad y=0$$

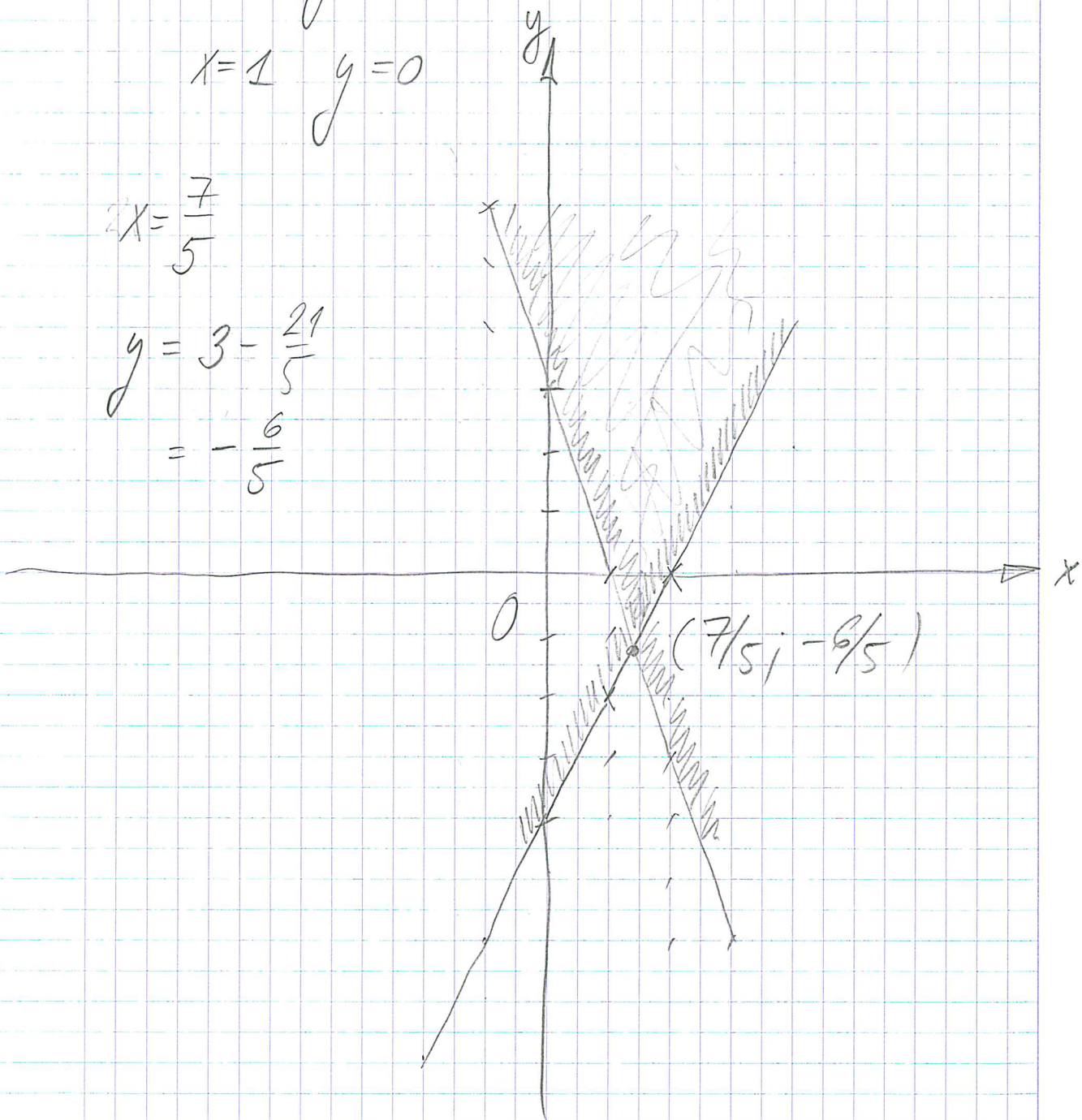
$$2x = \frac{7}{5}$$

$$y = 3 - \frac{21}{5} \\ = -\frac{6}{5}$$

$$\boxed{2x - y = 4}$$

$$x=0 \quad y=-4$$

$$x=2 \quad y=0$$



$$b) \begin{cases} -2x + y < -2 \\ -x + y \geq 1 \end{cases}$$

$$\boxed{-2x + y = -2}$$

$$x = 0 \quad y = -2$$

$$x = 1 \quad y = 0$$

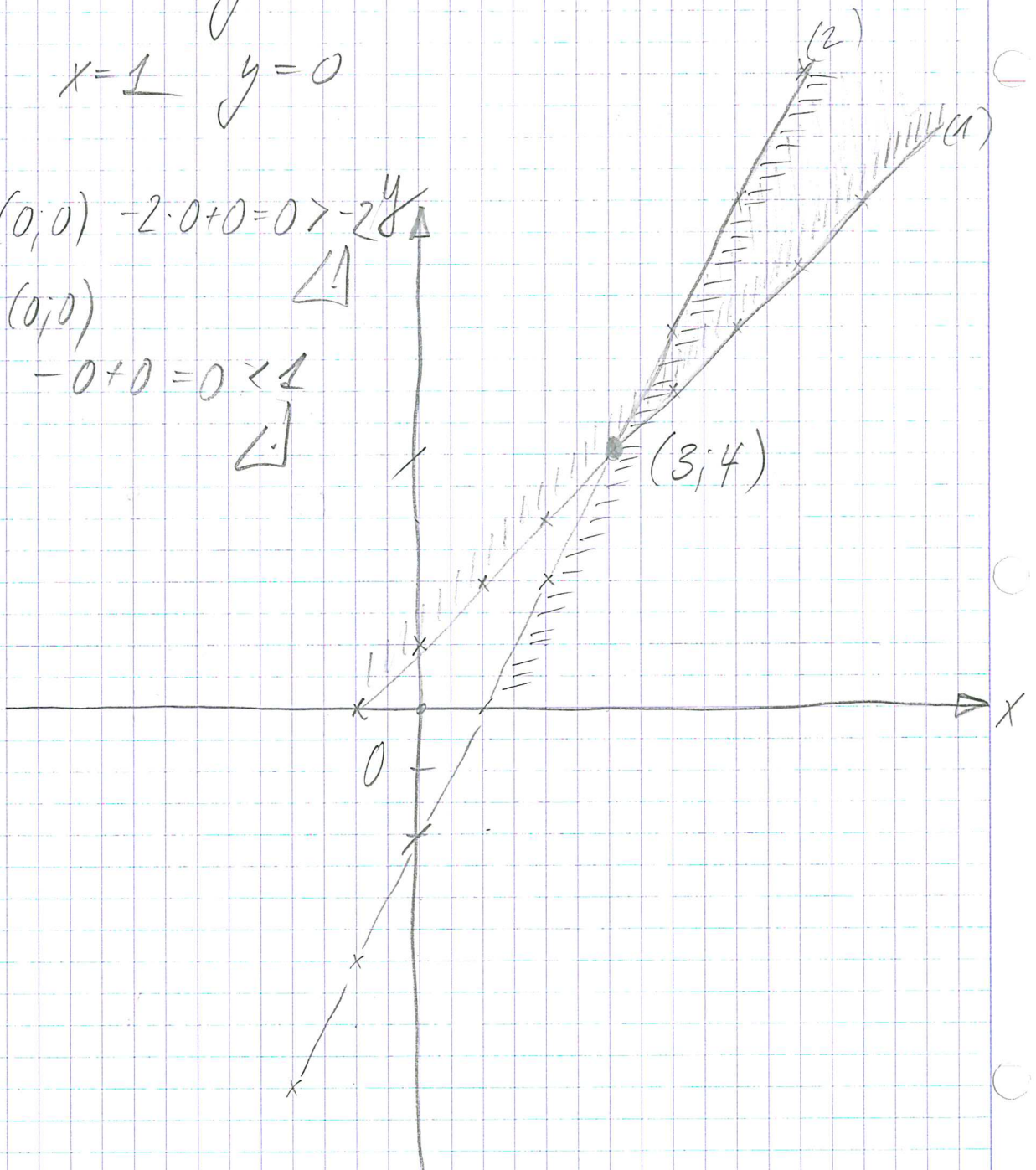
$$\boxed{-x + y = 1}$$

$$x = 0 \quad y = 1$$

$$x = -1 \quad y = 0$$

$$(1) (0; 0) \quad -2 \cdot 0 + 0 = 0 > -2$$

$$(2) (0; 0) \quad -0 + 0 = 0 < 1$$



$$c) \begin{cases} x - y \geq 0 \\ 2x + 5y < 10 \end{cases}$$

$$\boxed{x - y = 0}$$

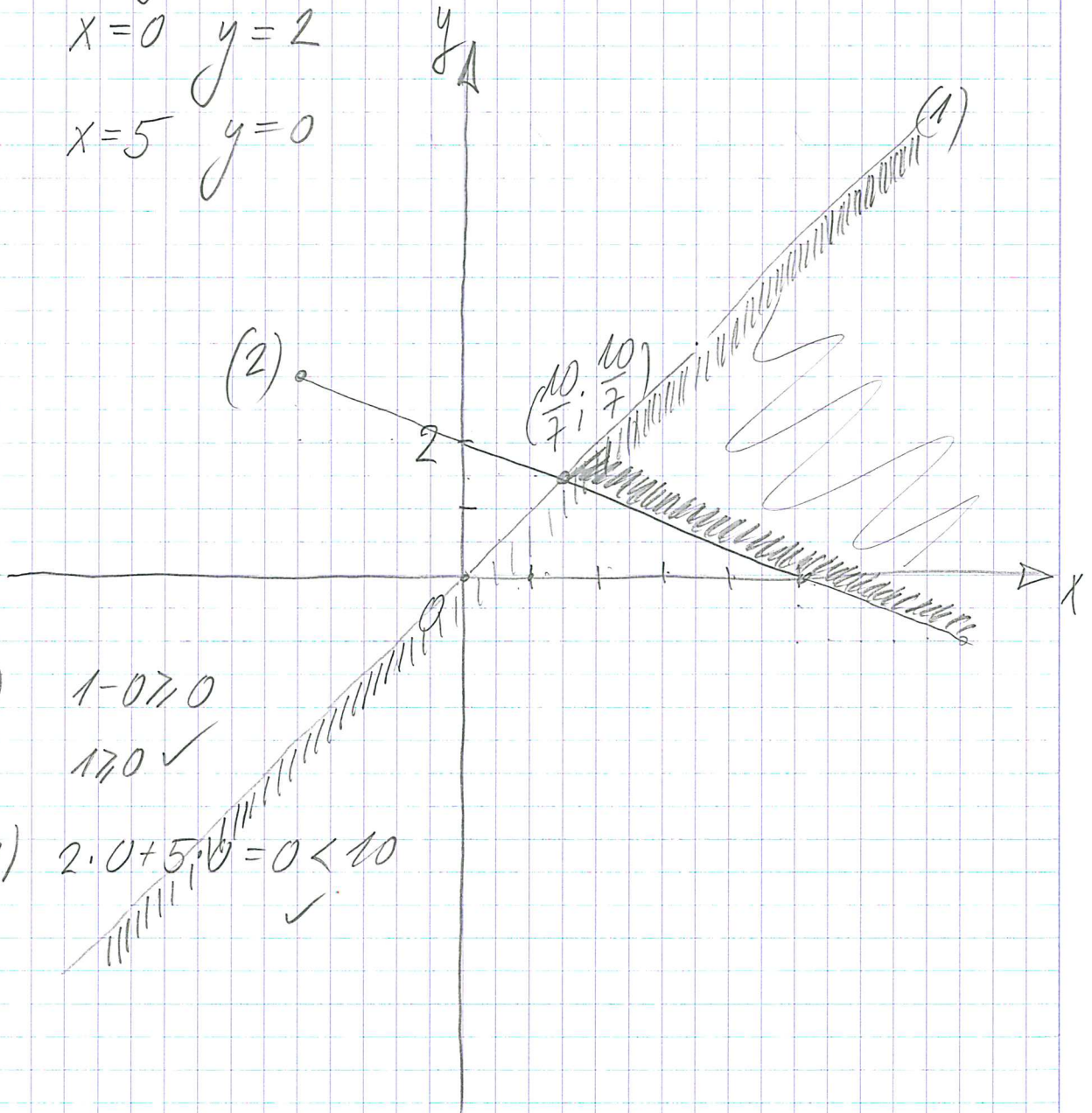
$$x = 0 \quad y = 0$$

$$x = 5 \quad y = 5$$

$$\boxed{2x + 5y = 10}$$

$$x = 0 \quad y = 2$$

$$x = 5 \quad y = 0$$



$$(1) (1; 0) \quad 1 - 0 \geq 0 \\ 1 \geq 0 \quad \checkmark$$

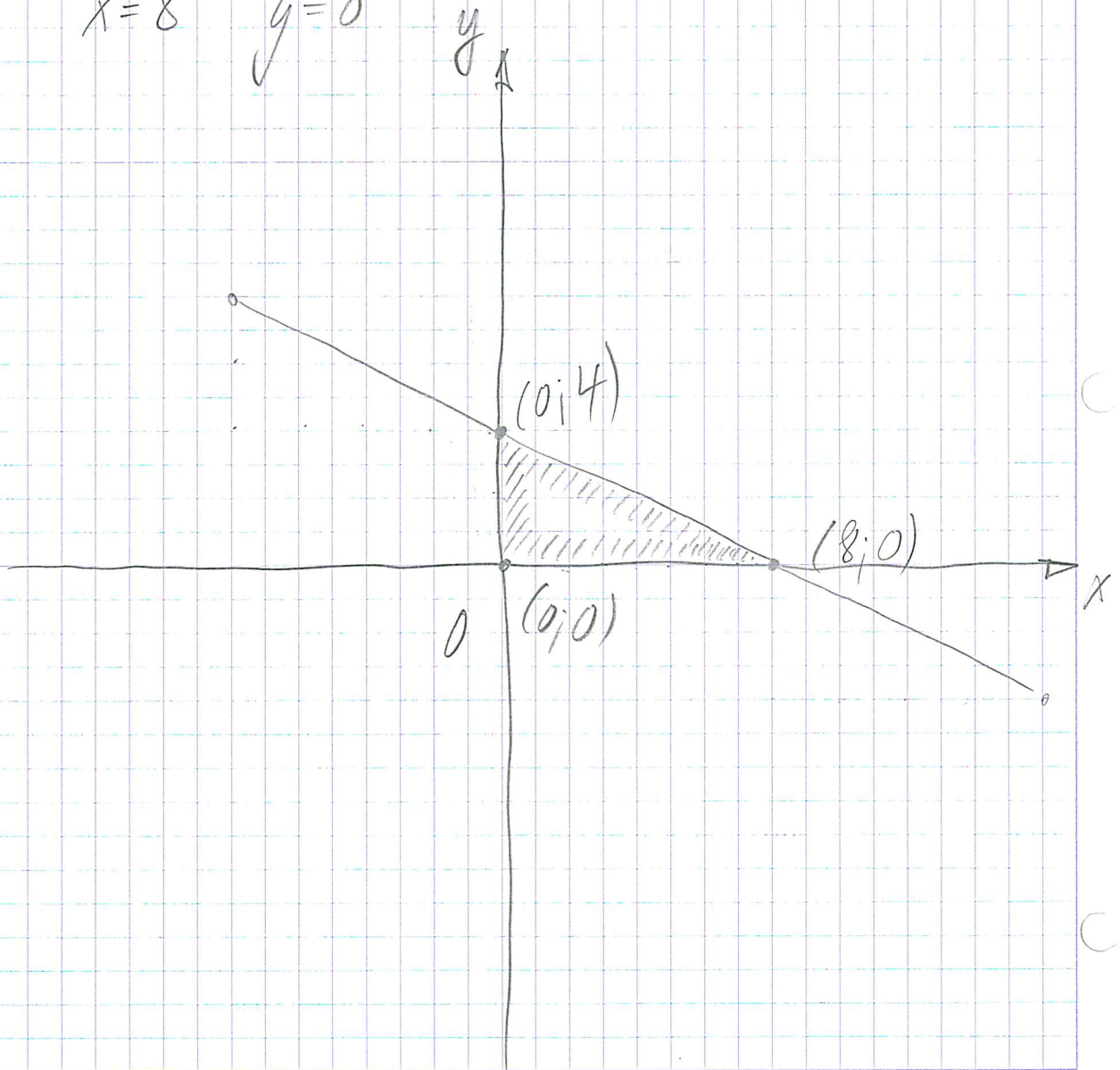
$$(2) (0; 0) \quad 2 \cdot 0 + 5 \cdot 0 = 0 < 10 \\ \checkmark$$

$$d) \begin{cases} x + 2y \leq 8 \\ x \geq 0 \\ y \geq 0 \end{cases}$$

$$x + 2y = 8$$

$$x = 0 \quad y = 4$$

$$x = 8 \quad y = 0$$



e)

$$\begin{cases} 3x + y \leq 6 & (1) \\ -2x + y > 1 & (2) \\ x \geq -2 & (3) \\ y < 4 & (4) \end{cases}$$

$$3x + y = 6$$

$$x=0 \quad y=6$$

$$x=2 \quad y=0$$

$$-2x + y = 1$$

$$x=0 \quad y=1$$

$$x=1 \quad y=3$$

$$y = 2x + 1$$

$$-2x + 3 = 1$$

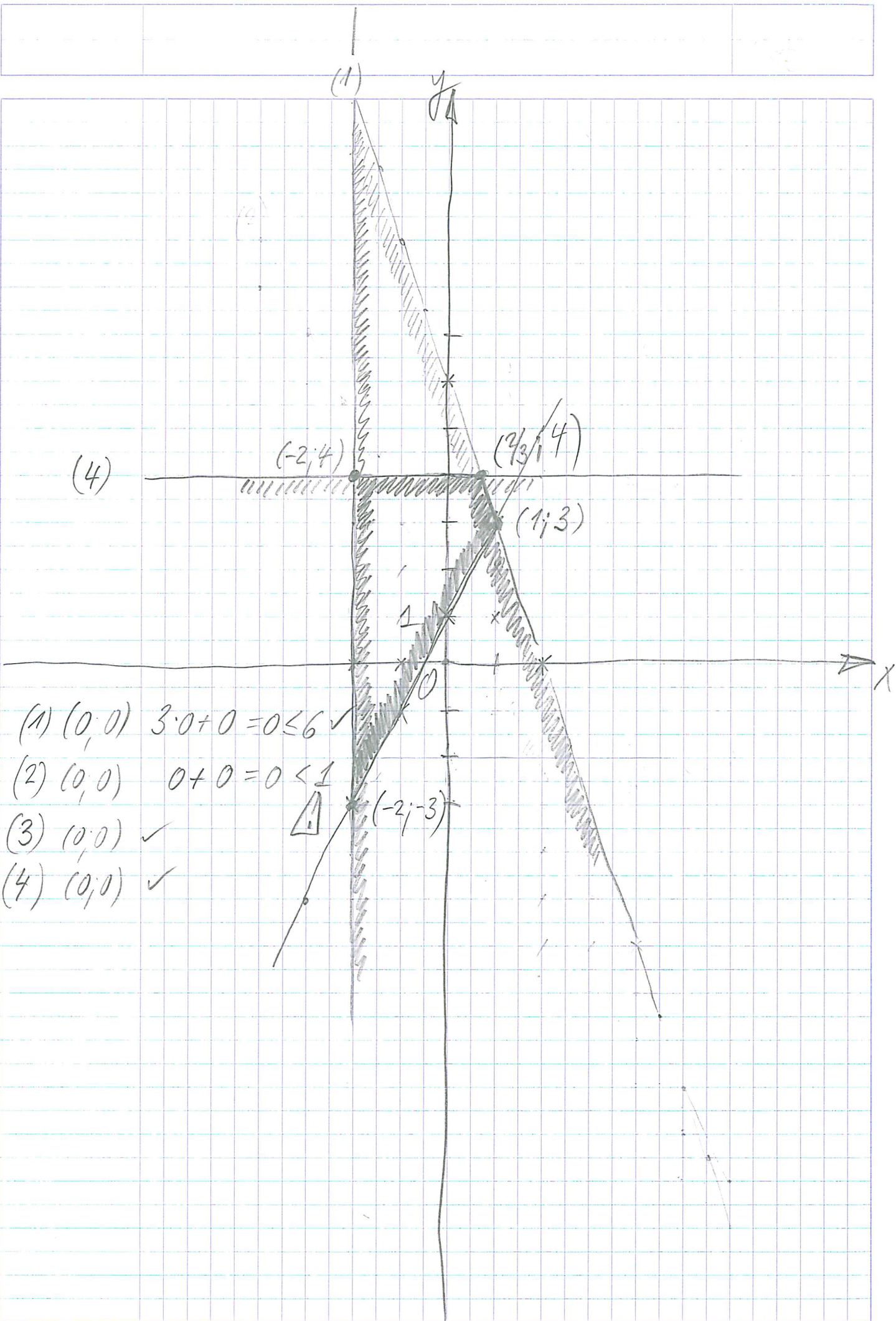
$$-2x = -2$$

$$y = 4$$

$$3x + 4 = 6$$

$$3x = 2$$

$$x = \frac{2}{3}$$



- (1)  $(0,0)$   $3 \cdot 0 + 0 = 0 \leq 6$  ✓
- (2)  $(0,0)$   $0 + 0 = 0 < 1$  ✓
- (3)  $(0,0)$  ✓
- (4)  $(0,0)$  ✓

1.2 / 1.3

$$f) \begin{cases} 2x + 3y \leq 12 & (1) \\ 2x + y \geq 2 & (2) \\ 3x - y \leq 8 & (3) \\ x \leq 3 & (4) \\ y \leq 4 & (5) \end{cases}$$

$$(1) \quad 2x + 3y = 12$$

$$x=0 \quad y=4 \quad (0; 4)$$

$$x=6 \quad y=0 \quad (6; 0)$$

$$(2) \quad 2x + y = 2$$

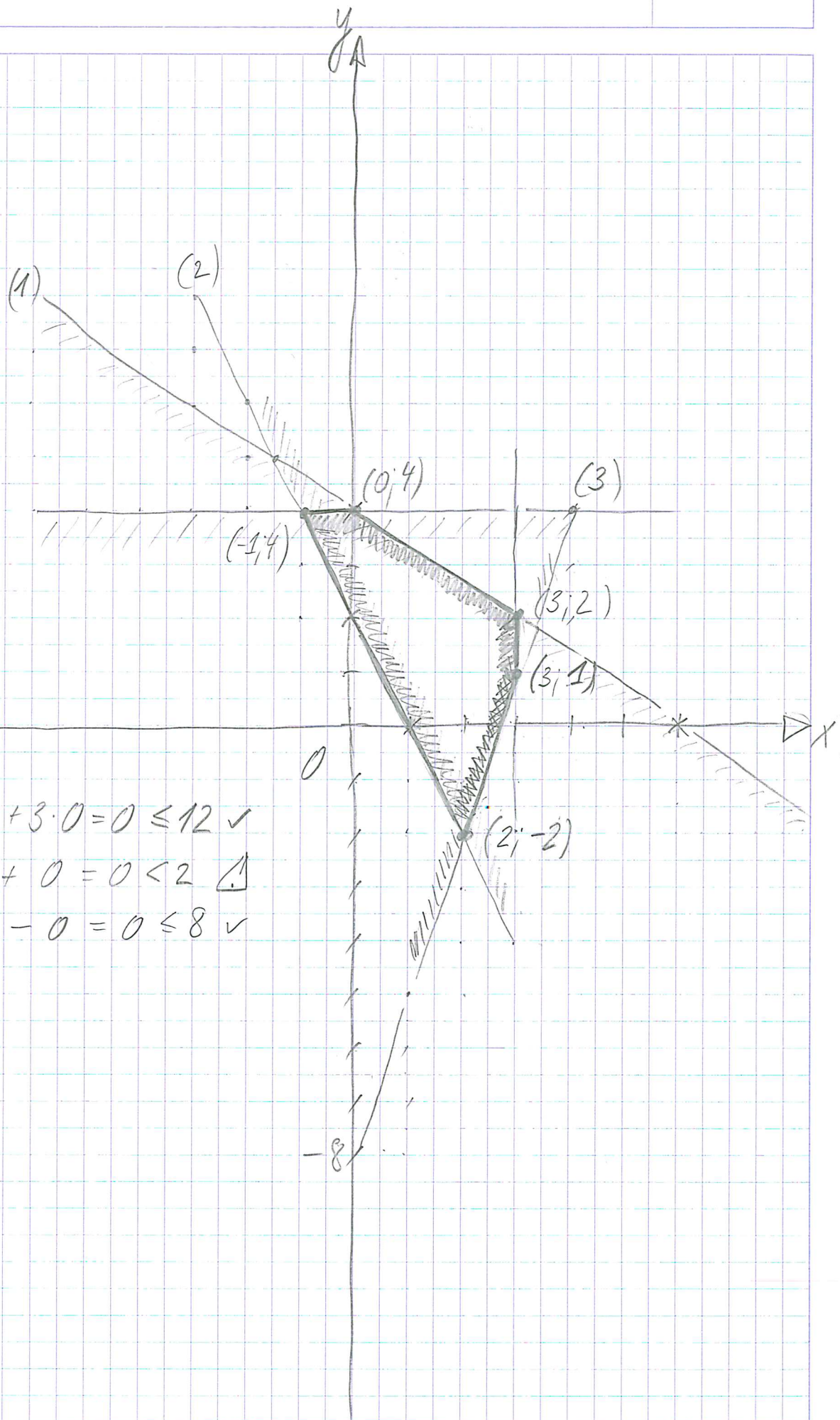
$$x=0 \quad y=2 \quad (0; 2)$$

$$x=1 \quad y=0 \quad (1; 0)$$

$$(3) \quad 3x - y = 8$$

$$x=0 \quad y=-8$$

$$x=4 \quad y=4$$



(1)  $2 \cdot 0 + 3 \cdot 0 = 0 \leq 12 \checkmark$

(2)  $2 \cdot 0 + 0 = 0 < 2 \triangle$

(3)  $3 \cdot 0 - 0 = 0 \leq 8 \checkmark$

(4)

(5)