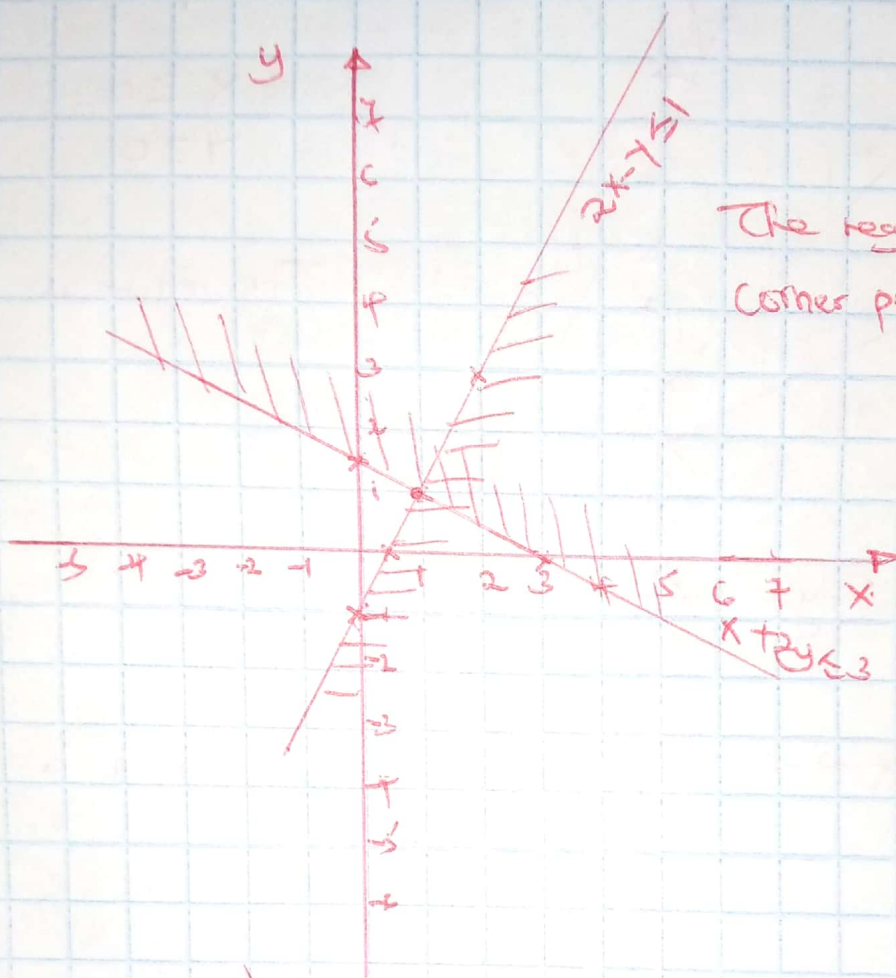


① $2x - y \leq 1$

x	0	1	2	3	$\frac{1}{2}$
y	-1	1	3	5	0

$x + 2y \leq 3$

x	0	3
y	$\frac{3}{2}$	0



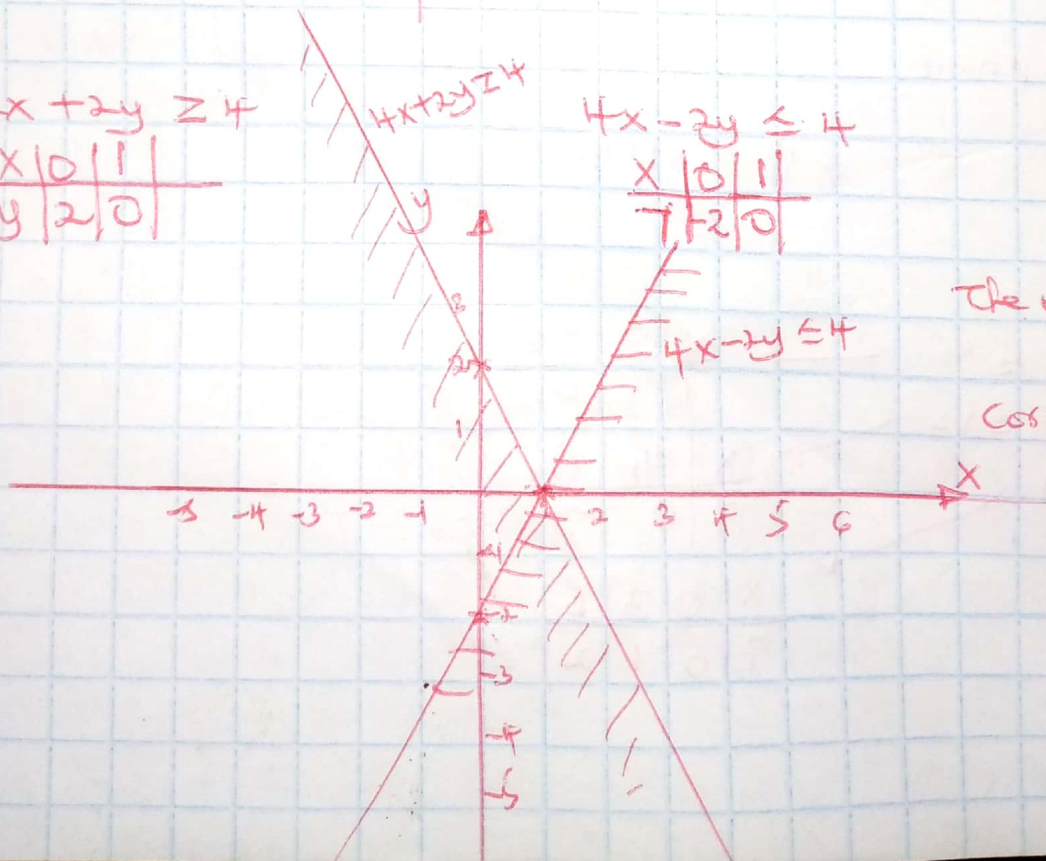
The region is unbounded
corner points (1, 1)

② $4x + 2y \geq 4$

x	0	1
y	2	0

$4x - 2y \leq 4$

x	0	1
y	-2	0



The region is unbounded
corner values (1, 0)

$$10x + 5y \leq 50$$

$$\begin{array}{c|c|c} x & 0 & 5 \\ \hline y & 10 & 0 \end{array}$$

$$5x + 10y \leq 50$$

$$\begin{array}{c|c|c} x & 0 & 10 \\ \hline y & 5 & 0 \end{array}$$

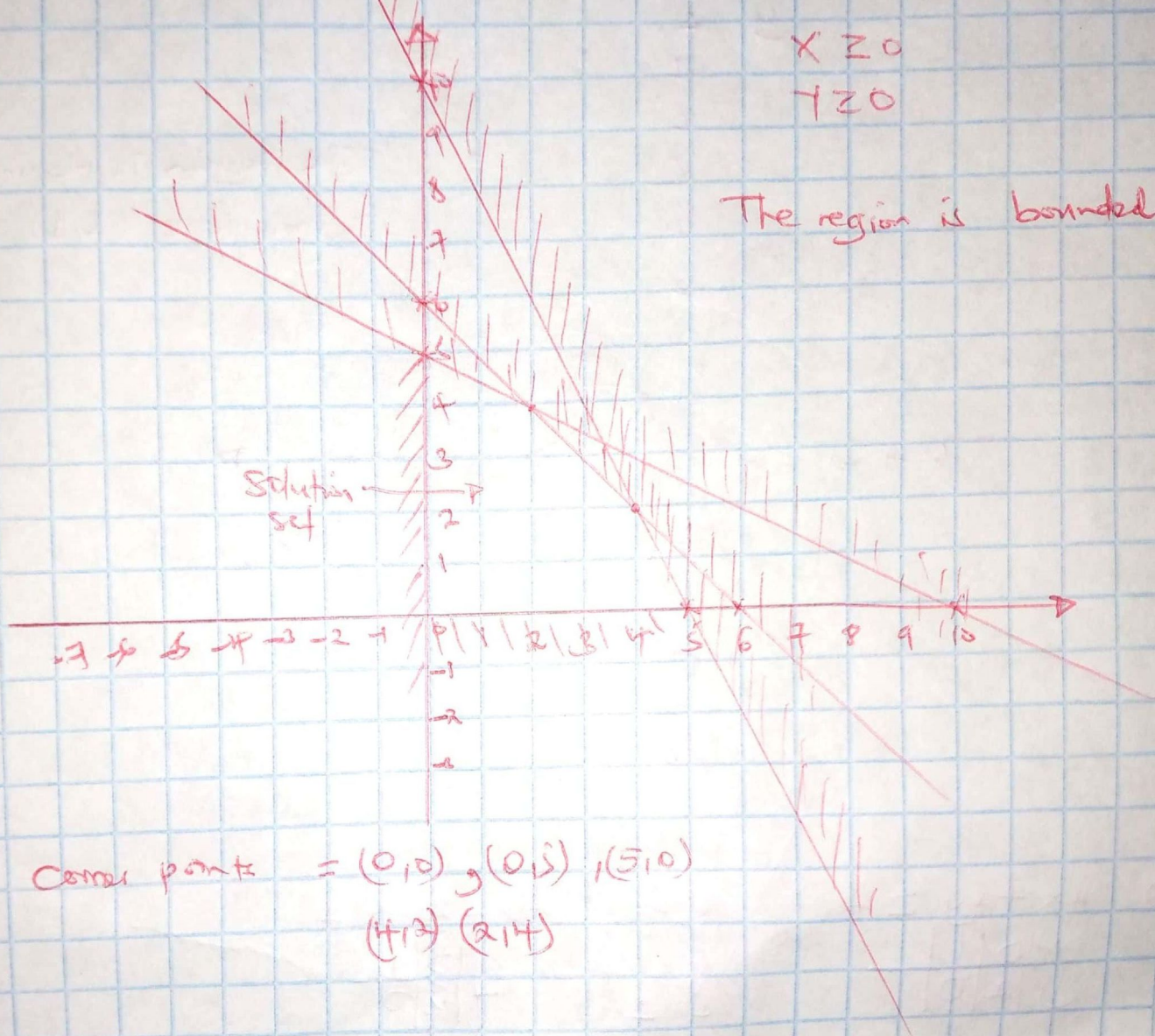
$$5x + 5y \leq 30$$

$$\begin{array}{c|c|c} x & 0 & 6 \\ \hline y & 6 & 0 \end{array}$$

$$x \geq 0$$

$$y \geq 0$$

The region is bounded



Corner points = $(0,0)$, $(0,5)$, $(5,0)$, $(4,2)$, $(2,4)$

$$\textcircled{A} \quad -7x + 3y \leq 11 \quad \rightarrow \quad \begin{array}{c|c|c} x & 0 & -11/3 \\ \hline y & 11/3 & 0 \end{array}$$

$$7x - 3y \leq 12$$

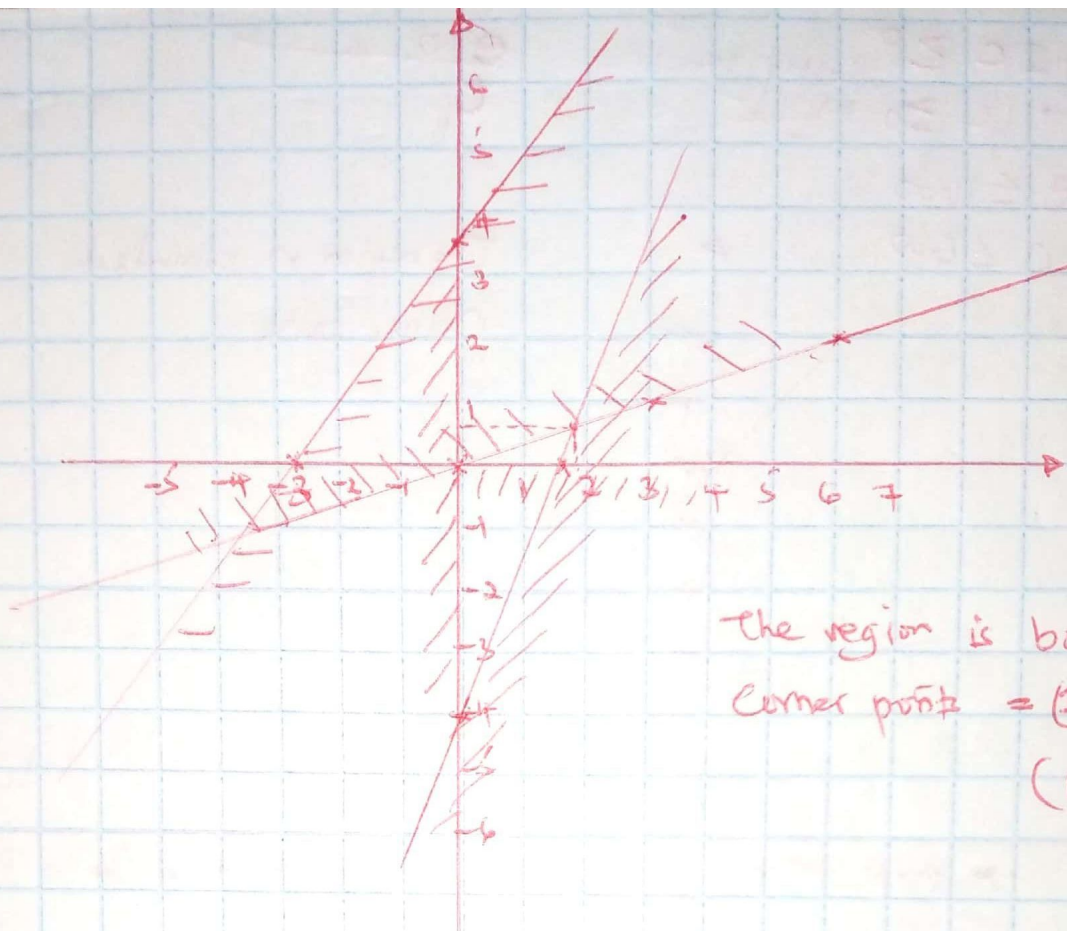
$$x \leq 3y$$

$$x \geq 0$$

$$y \geq 0$$

$$\begin{array}{c|c|c} x & 12/7 & 0 \\ \hline y & 0 & -4 \end{array}$$

$$\begin{array}{c|c|c|c} x & 0 & 3 & 6 \\ \hline y & 0 & 1 & 2 \end{array}$$



The region is bounded
 Corner points = $(1, 0)$, $(\frac{12}{7}, 0)$
 $(1.75, 2)$

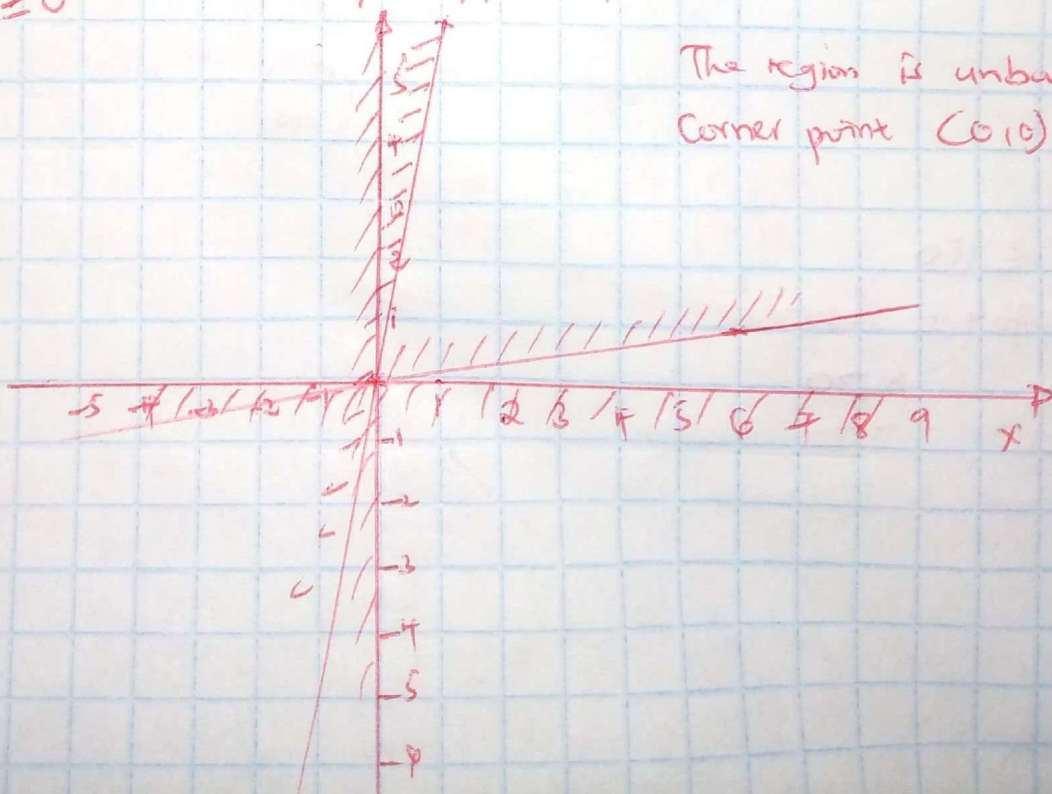
⑤ $6x - y \geq 0 \rightarrow$

x	0	1	2
y	0	6	12

 $x - 6y \leq 0 \rightarrow$

x	0	6	12
y	0	1	2

 $x \geq 0$
 $y \geq 0$



The region is unbounded
 Corner point $(0, 0)$

⑥

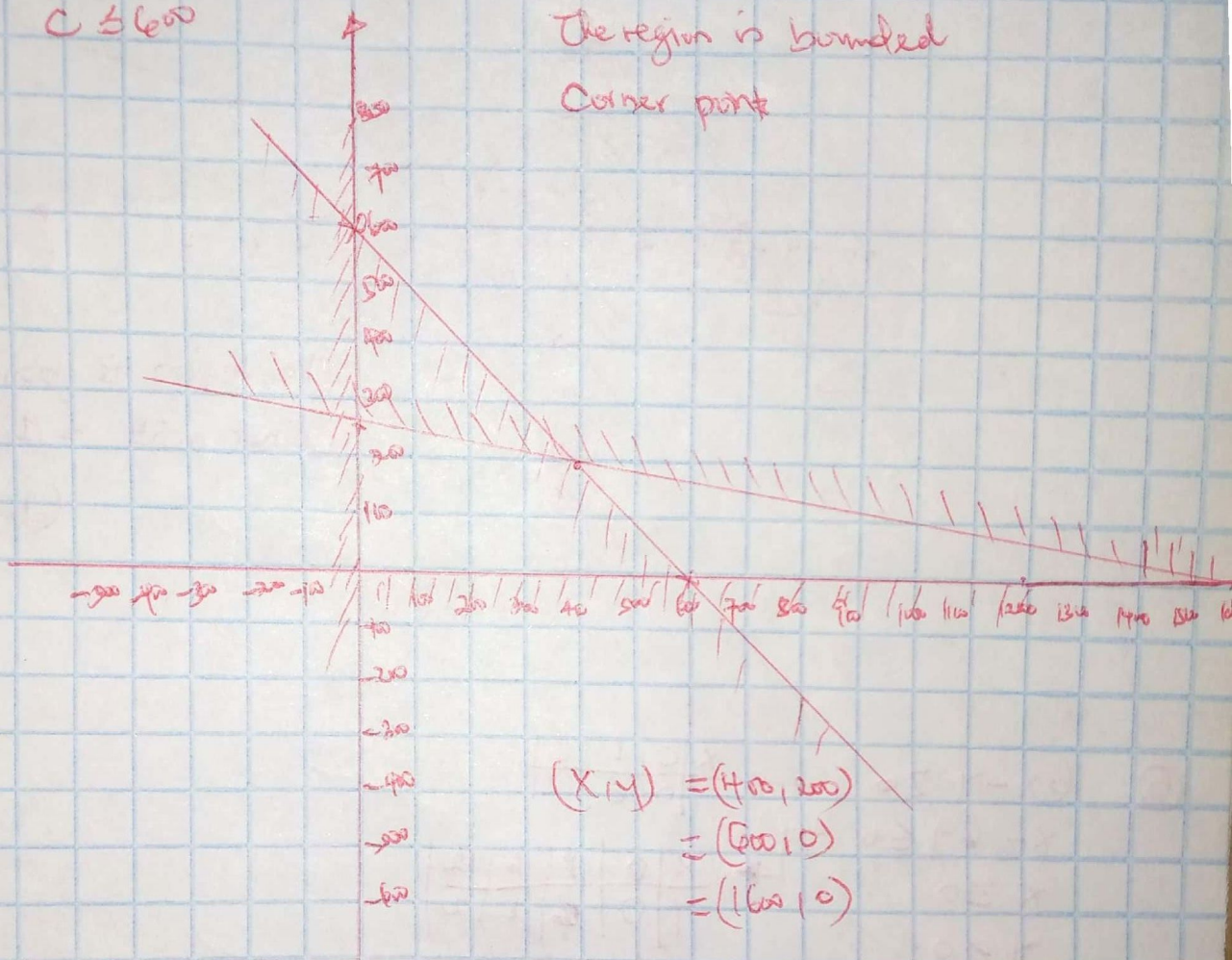
$$2e + 1c \geq 0 \text{ (daily km/l)} \\ 4e + 1c \geq 0 \text{ (Mg/he)}$$

$$e \leq 1600$$

$$c \leq 600$$

$$\frac{e}{c}$$

The region is bounded
Corner point



$$(X, Y) = (1600, 0) \\ = (0, 0) \\ = (400, 200)$$

$$T = \begin{pmatrix} 0 \\ 200 \end{pmatrix}$$

⑦

$$x + y \leq 150$$

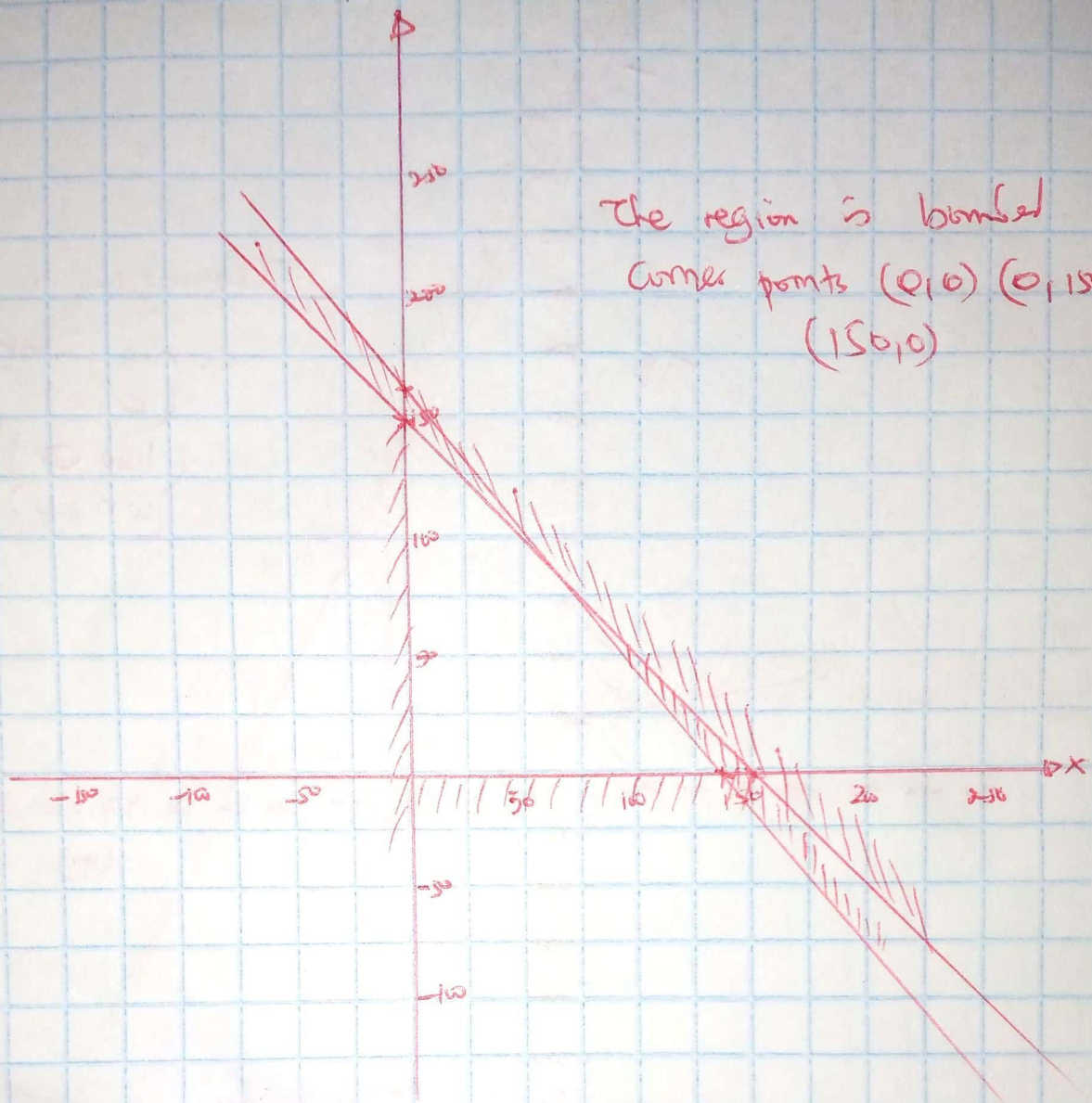
$$80x + 70y \leq 11200$$

$$x \geq 0$$

$$x \geq 0$$

$$y \geq 0$$

$$y \geq 0$$



The region is bounded
 Corner points $(0,0)$ $(0,150)$
 $(150,0)$

$$1000 G_B + 100 T_B \leq \text{prime}$$

$$600 G_B + 50 T_B \leq \text{Izal}$$

X	0	1000
Y	100	0

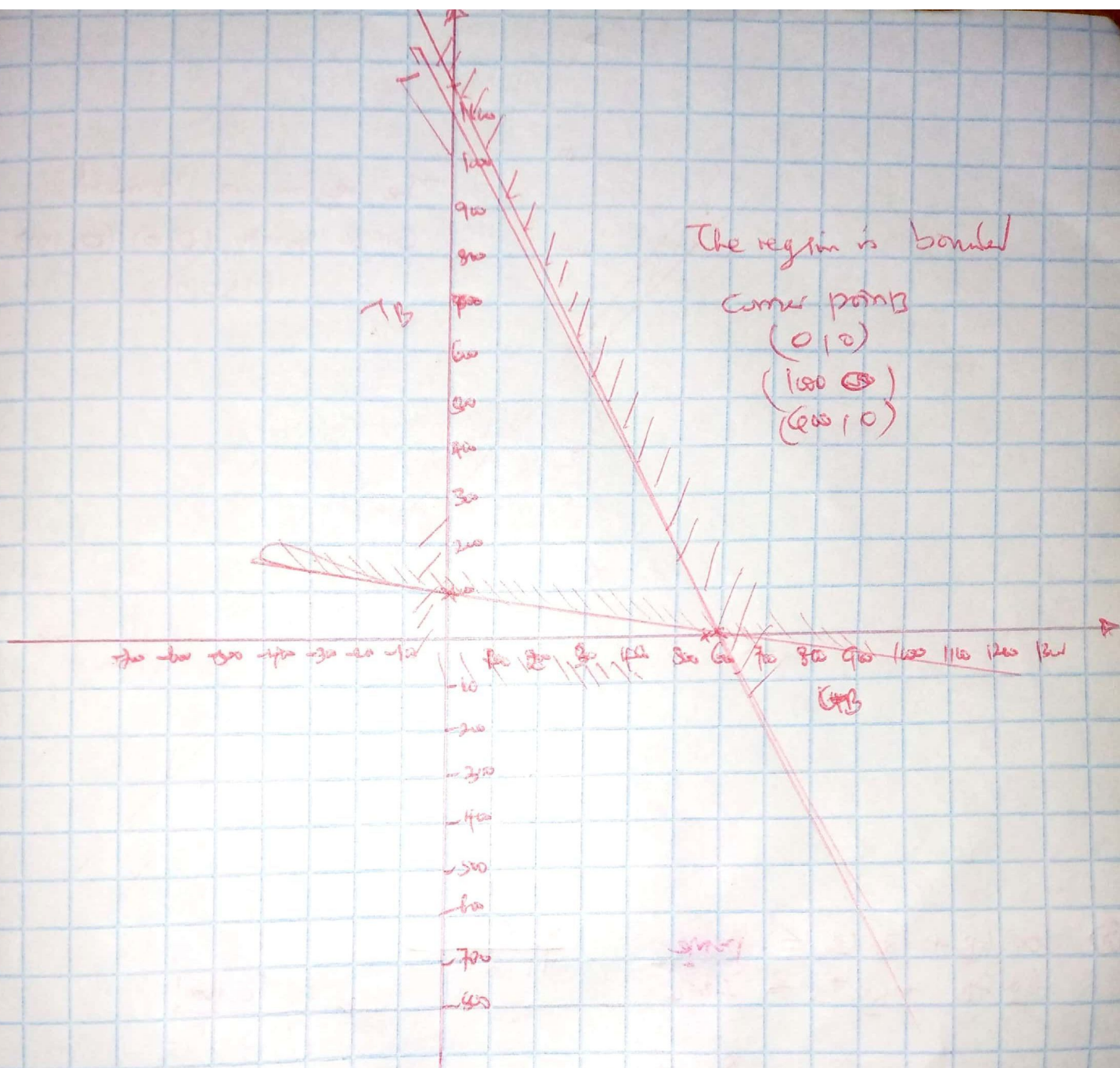
X	0	600
Y	50	0

$$600 \text{ Izal} + 1000 \text{ prime} \leq 600000$$

$$\text{So Izal} + 1000 \text{ prime} \leq 57500$$

X	0	600
Y	100	0

X	0	575
Y	1150	0



(9).

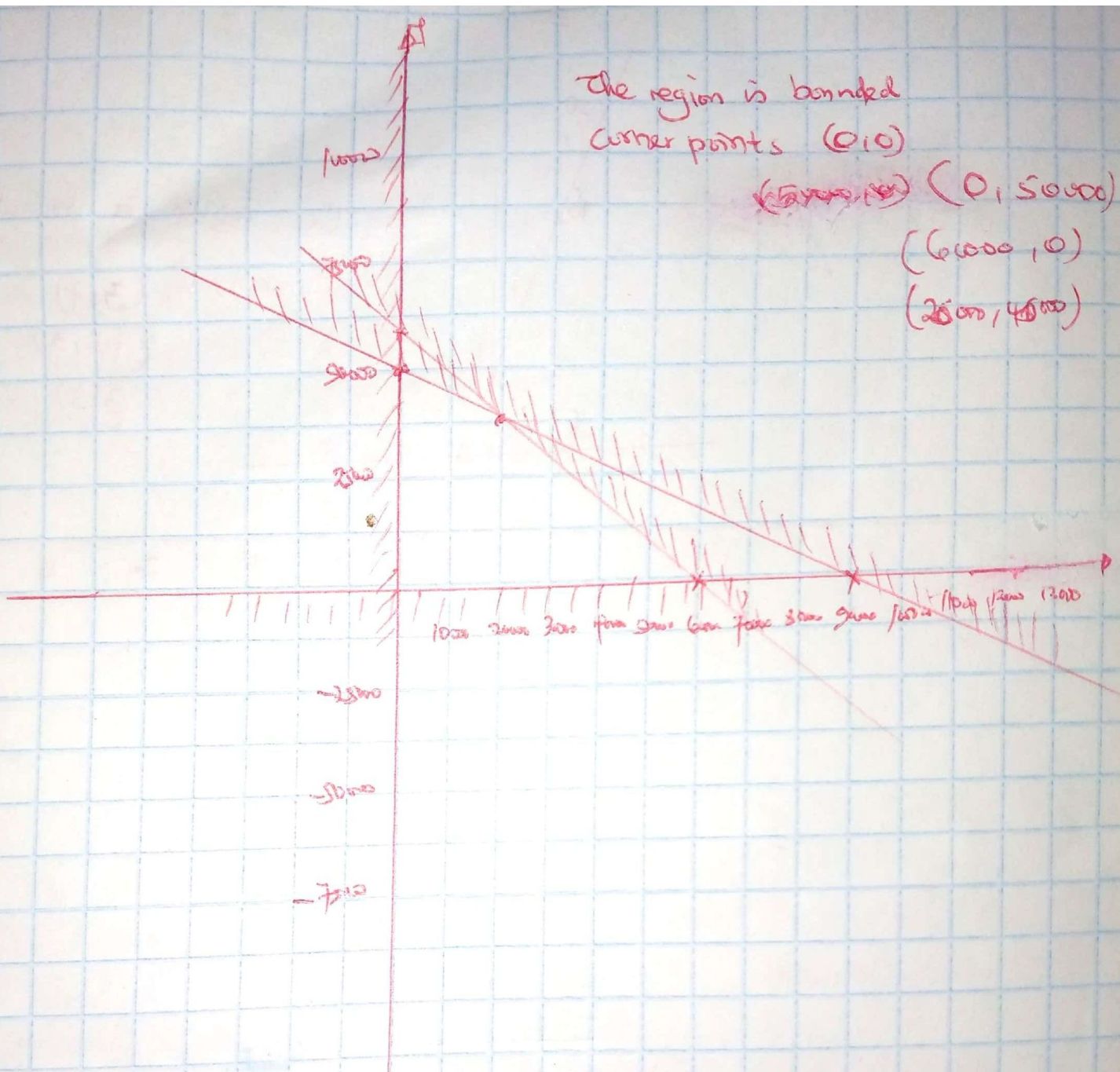
$$\frac{5}{100} ZTR + \frac{9}{100} MSP \leq 4500$$

$$0.05 ZTR + 0.09 MSP \leq 4500$$

$$ZTR + MSP \leq 60000$$

$$ZTR \geq 0$$

$$MSP \geq 0$$



The region is bounded
corner points (0,0)

(~~5000, 0~~) (0, 5000)

(6000, 0)

(2500, 4000)

$$A \leq 57500 \checkmark$$

$$B \leq 27500 \checkmark$$

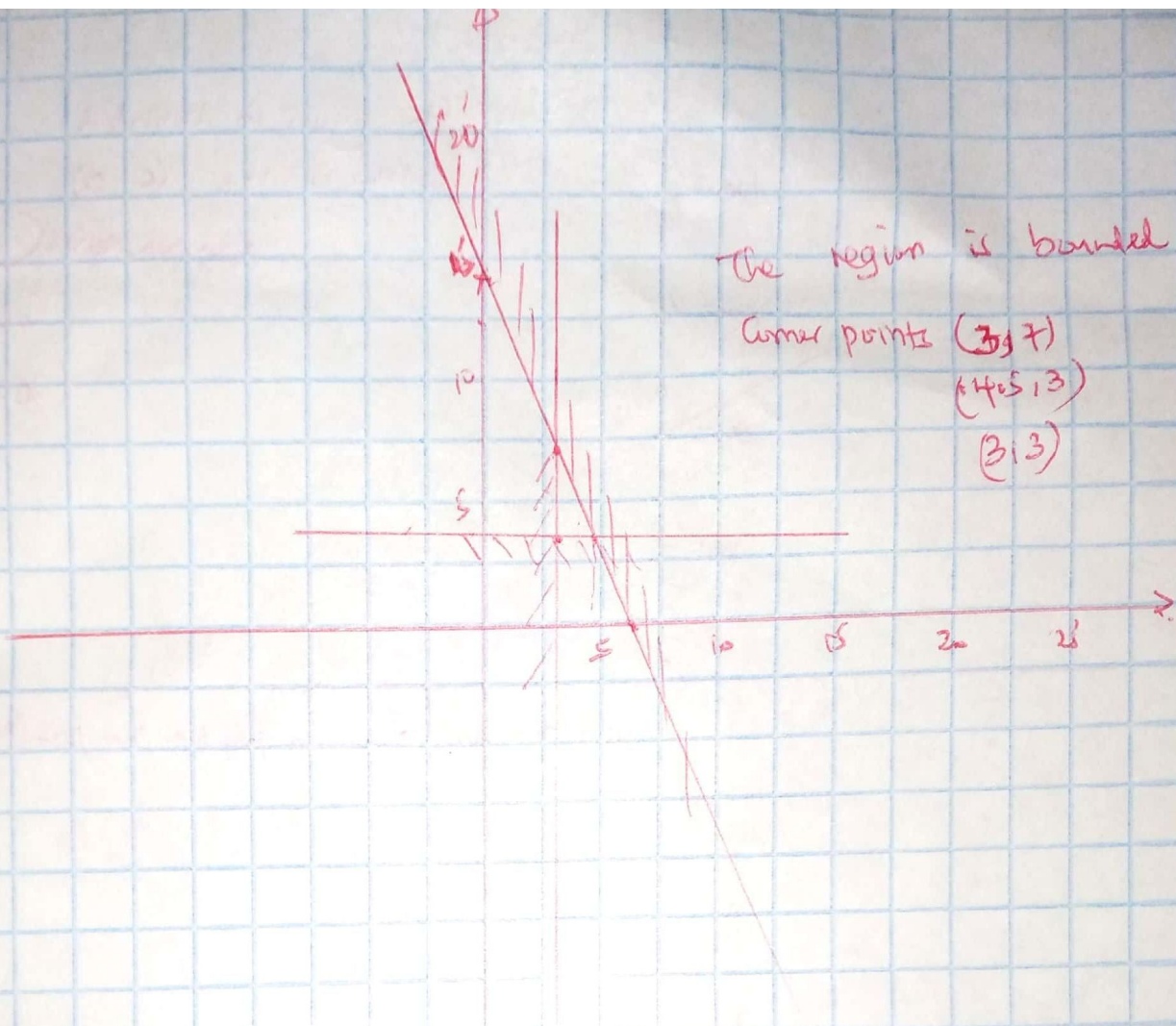
$$\text{Want } 54000000 \checkmark$$

$$57500A + 27500B \leq 4000000$$

A	0	6.45
B	14.54	0

$$A \geq 3$$

$$B \geq 3$$



The region is bounded

Corner points $(3, 7)$
 $(4, 13)$
 $(2, 3)$