

for my graph maximum on $x_1 = 8$

value on $y = 4$

Scale icon rep + shift on x_1

Scale - - Only y .

$$8I = (1)H + (0)E$$

7 4

Intersection

$$+5x_1 + 6x_2 \leq 40$$

6

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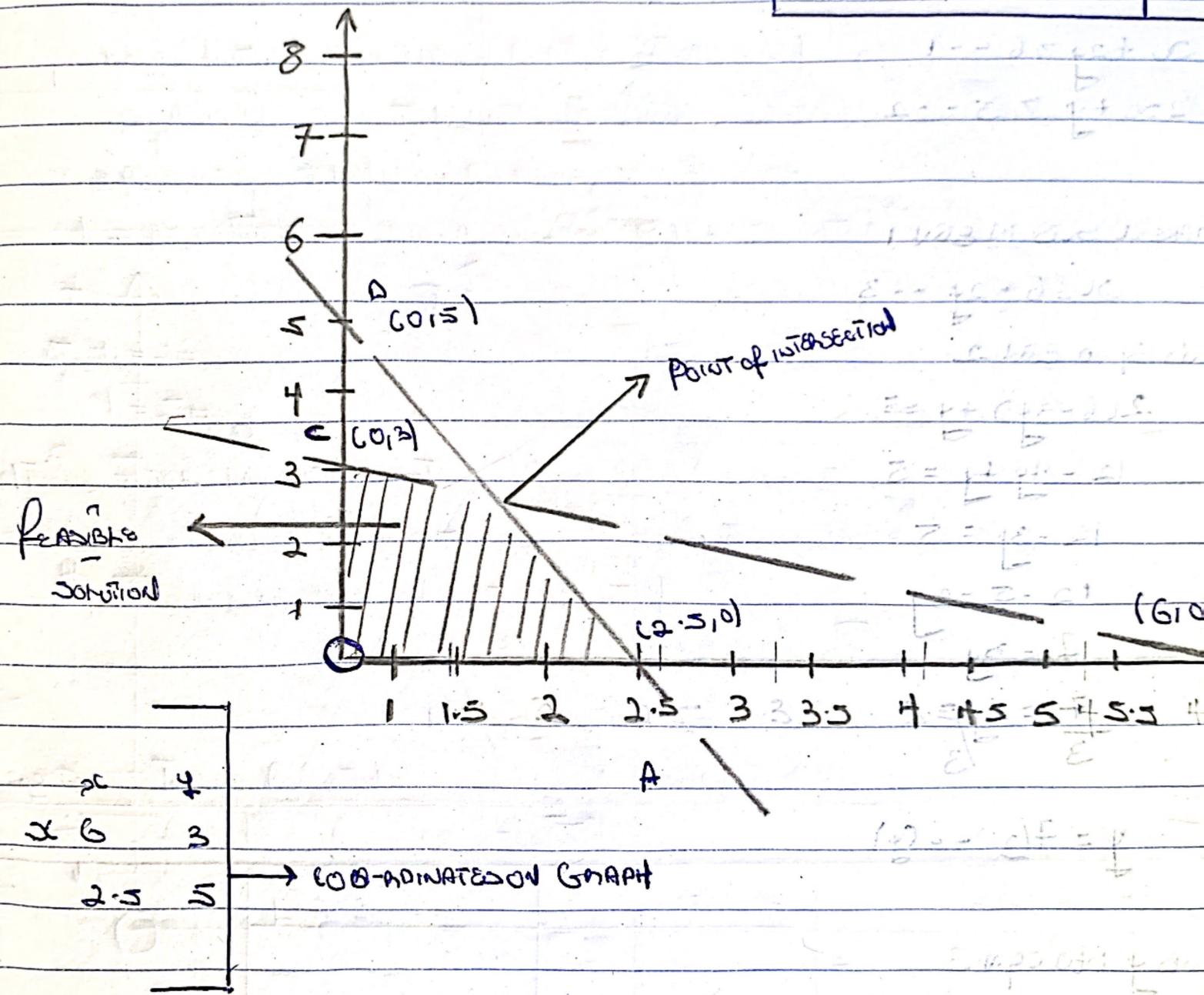
-281

-282

CONSTRUCTION

Scale on x-axis 1 cm rep 0.5

y-axis 1 cm rep 1



Extreme Points

$O_1(0,0)$

$A(2.5,0)$

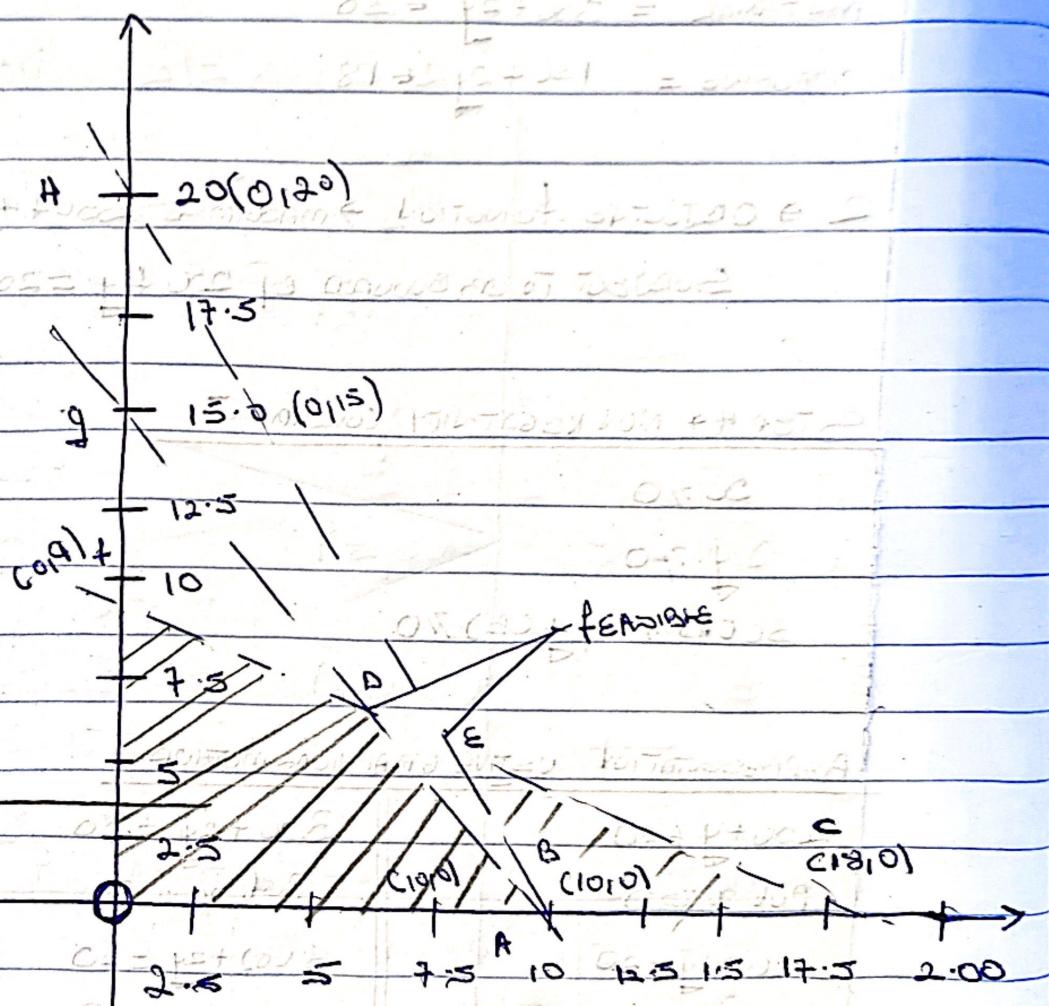
SCALE ON X-Axis 1cm = 5 UNIT

Y - Axis 1cm = 2.5 UNIT

GRAPH

Maximum of $x_1 = 18$

$$y = 20$$



$\text{S1} \equiv$ Feasible Region

Frontier

Extreme points on boundaries

$(0, 0)$

$(10, 0)$

$(0, 12)$

$(18, 0)$

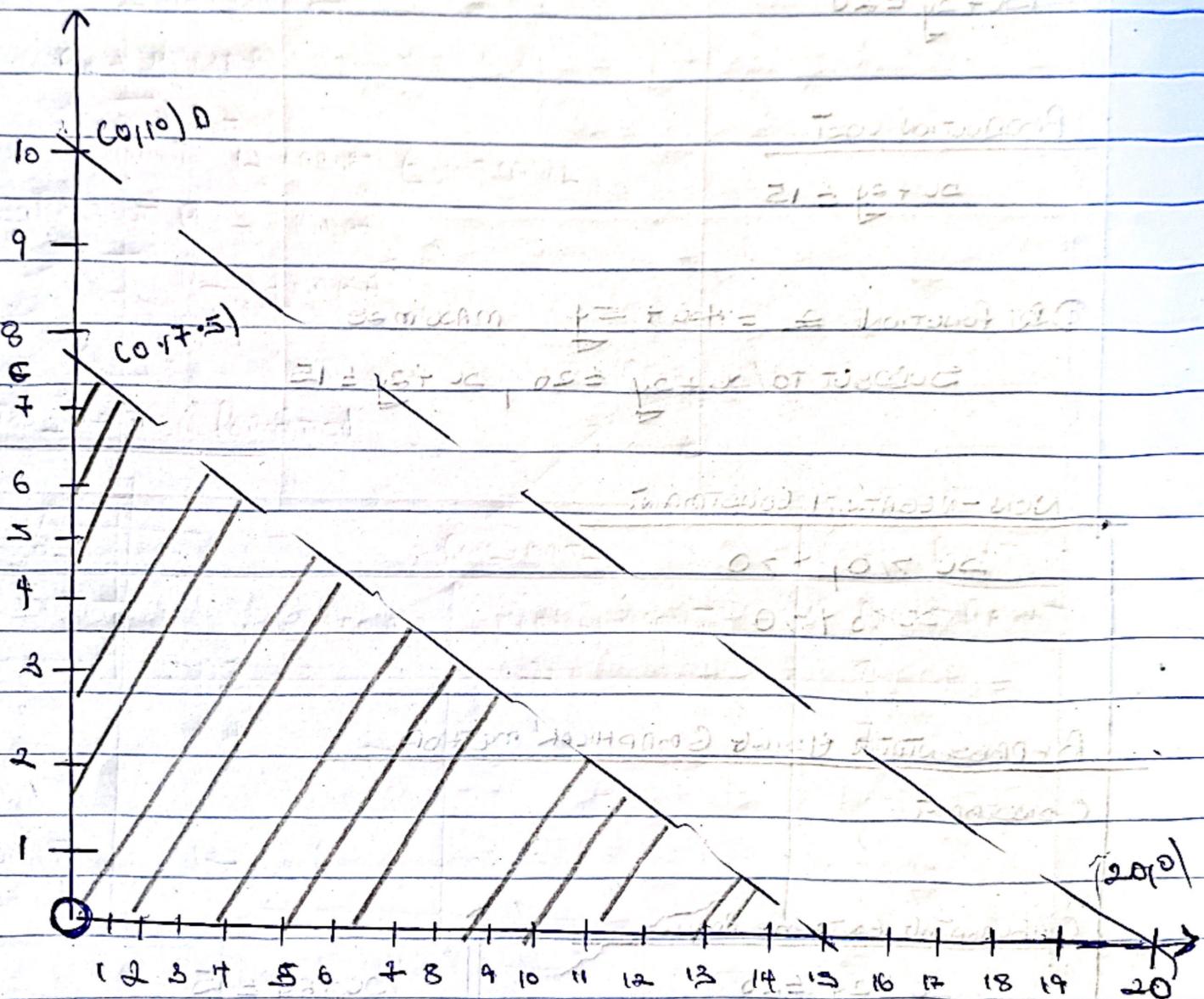
= Feasible Region

for my graph highest point on $x = 20$

$$y = 10$$

Scales = 1cm to rep 1 unit on x

1 cm to rep 1 unit on y



C(0,0)

B

EXTREME POINTS

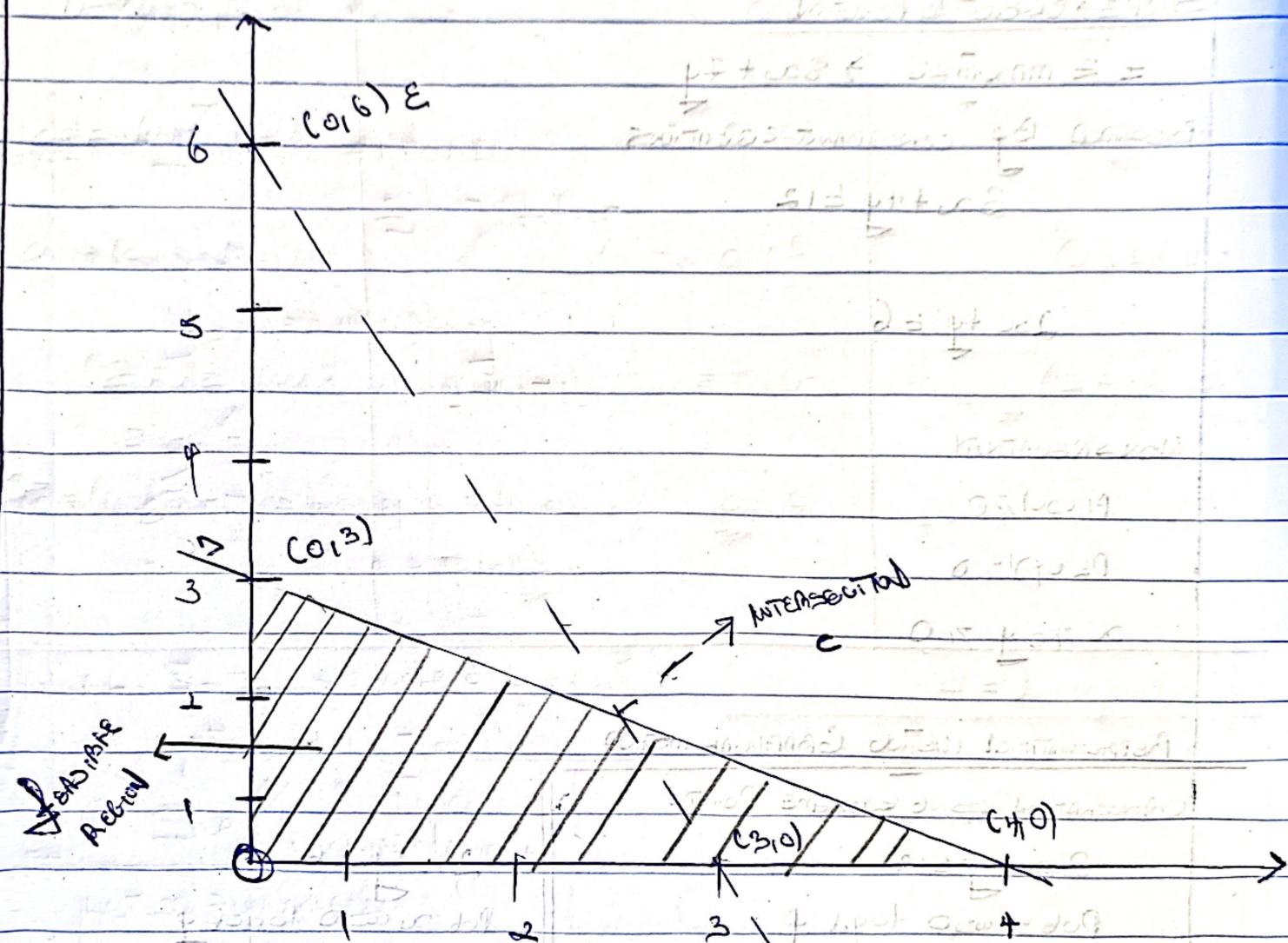
D(0,0)

-C(5,0)

FEASIBLE REGION

$$\text{MAX}_{\text{OF}} \text{X} = 4$$

$$A_0 = 6$$



$\rightarrow C(0,0)$

$\rightarrow C(3,0)$

FERRABLE REGION

$$2x+4y = 16$$

Plotting on graph

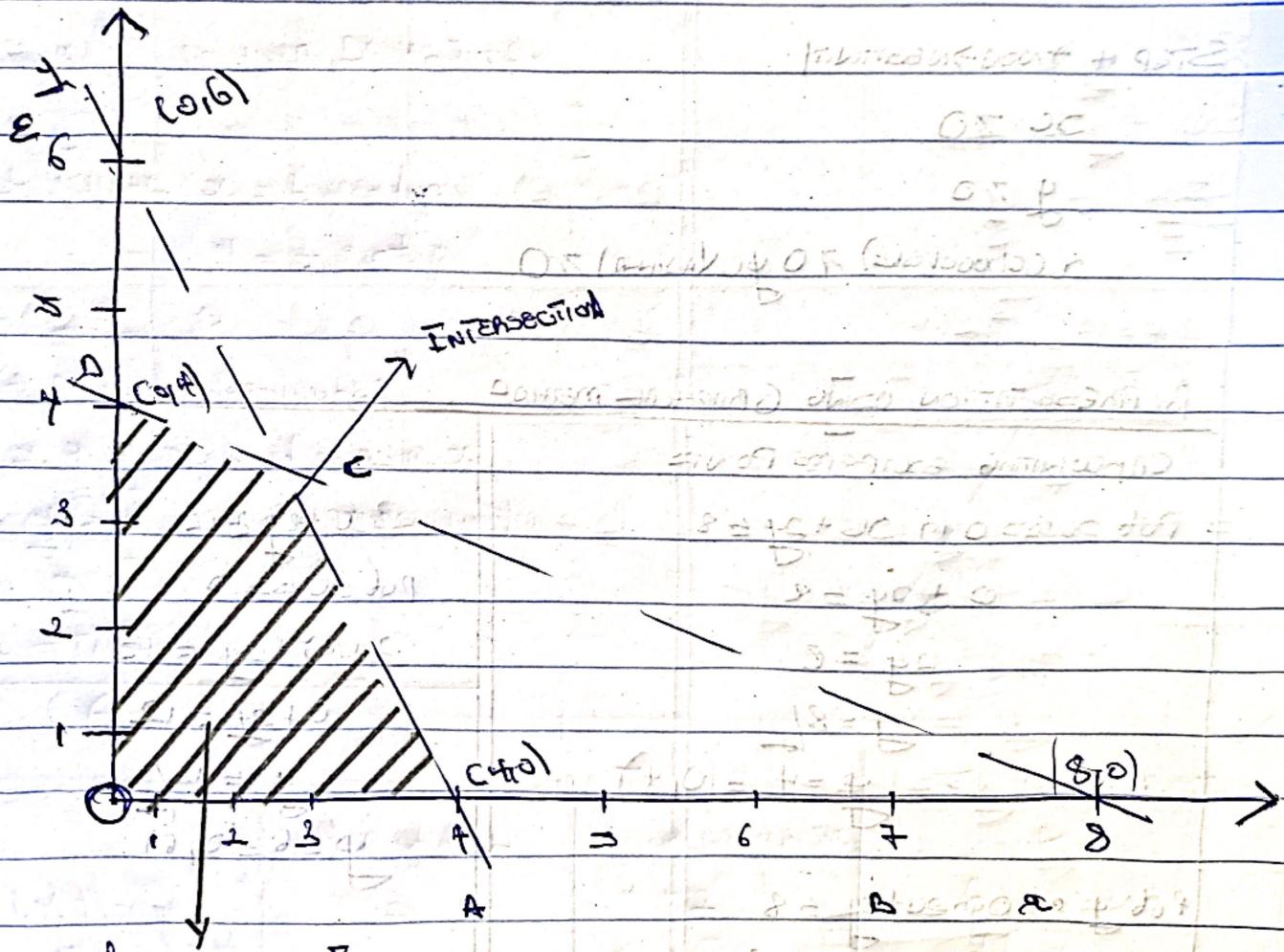
$$(8, 4)$$

$$(4, 6)$$

$$x \leq 4$$

$$\text{max on } x=8$$

$$\text{max on } y=6$$



Feasible Region

$$x = 0 + 8 \geq 0$$

$$(2, 8) \cdot 8 = 0$$

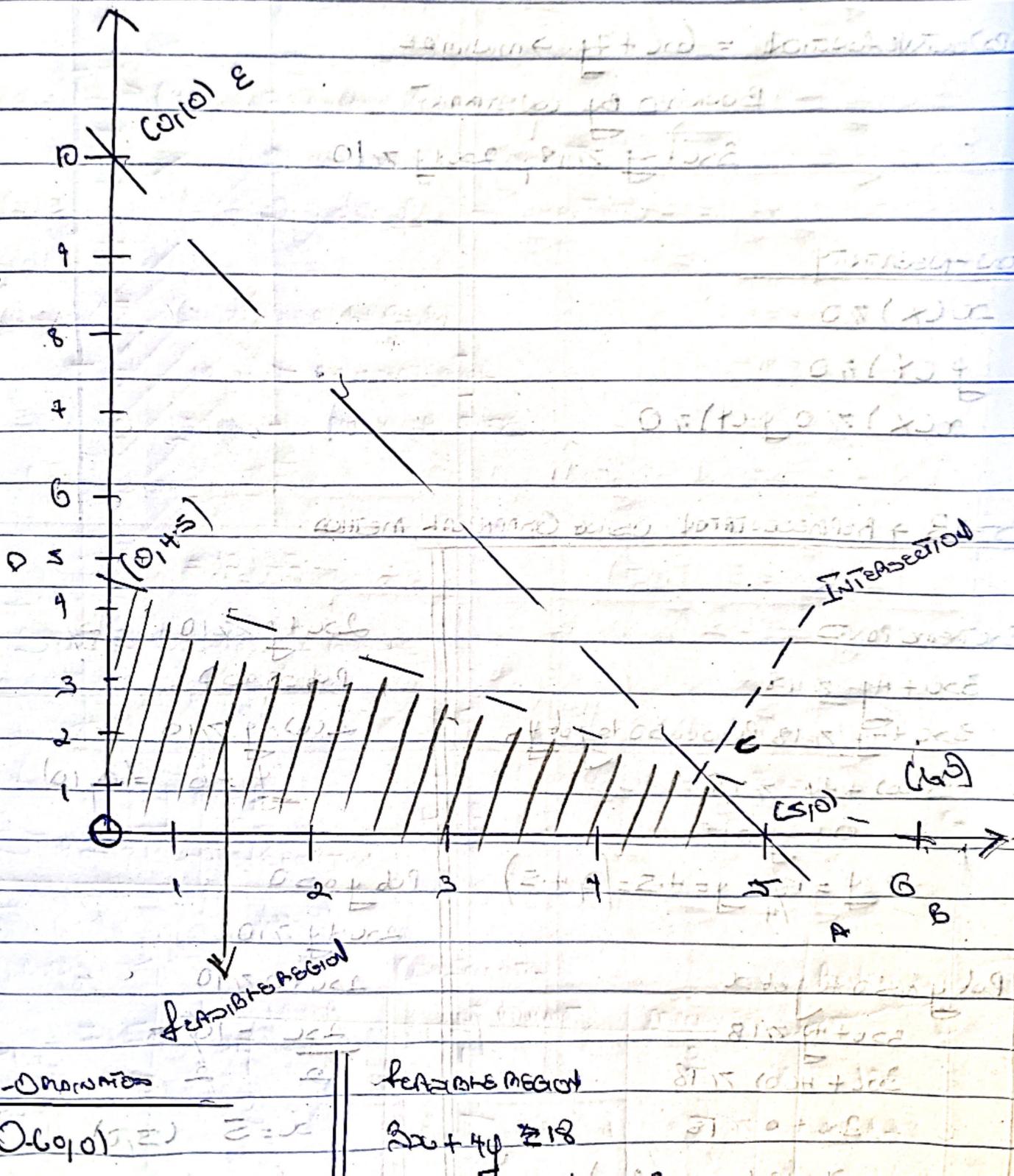
Marc Vahuson 20-6

State on x-axis \leftrightarrow 1 Gm rep 1 unit

$$\Delta f = 10$$

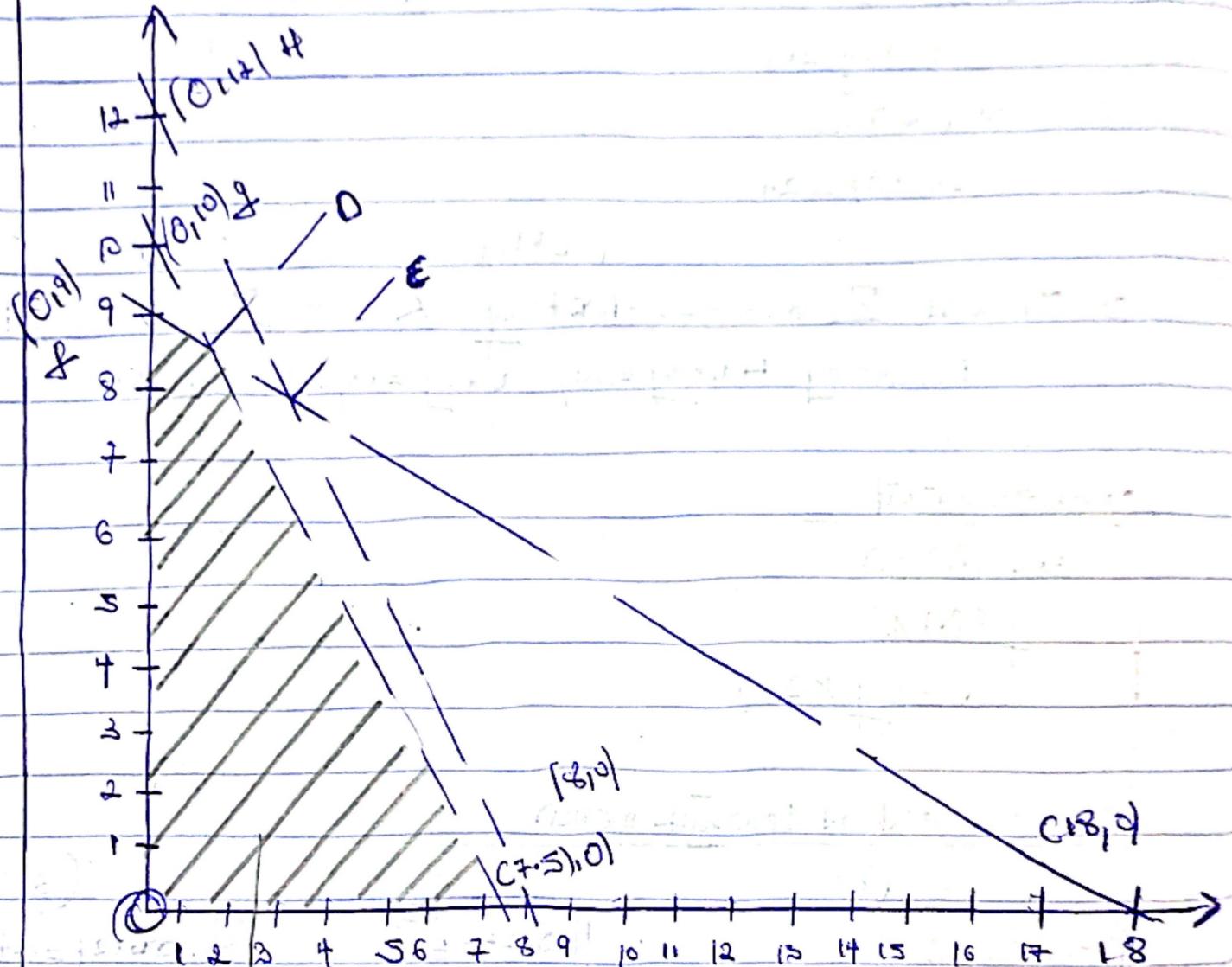
~~215~~ 4-~~Ans~~ → 1cm rep 1 unit

Q15 What is the value of θ such that $\sin \theta = \frac{1}{2}$?



Sentences 1 cm to rep 1 unit

0V4 \rightarrow 1 cm to rep 1 unit



FEASIBLE REGION

$(7.5, 10), (18, 9), (8, 12) \rightarrow$ VALUE OF EXTREME POINT

CO-ORDINATES

$(0, 0)$

$(0, 12)$

FEASIBLE REGION

$x + 2y \leq 18$

$(0, 7.5)$

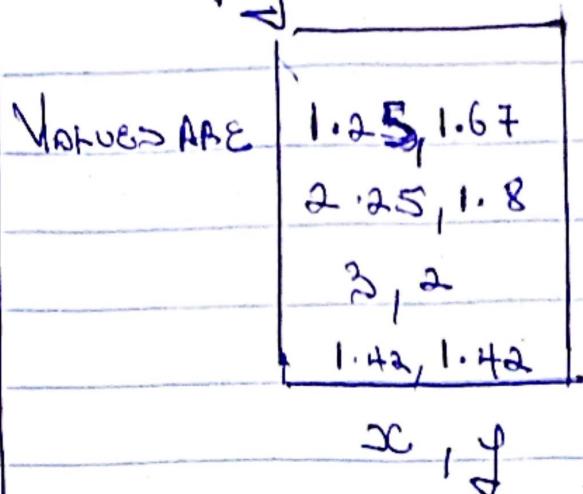
$4x + 3y \leq 30$

$0 + 2(0) \leq 18$

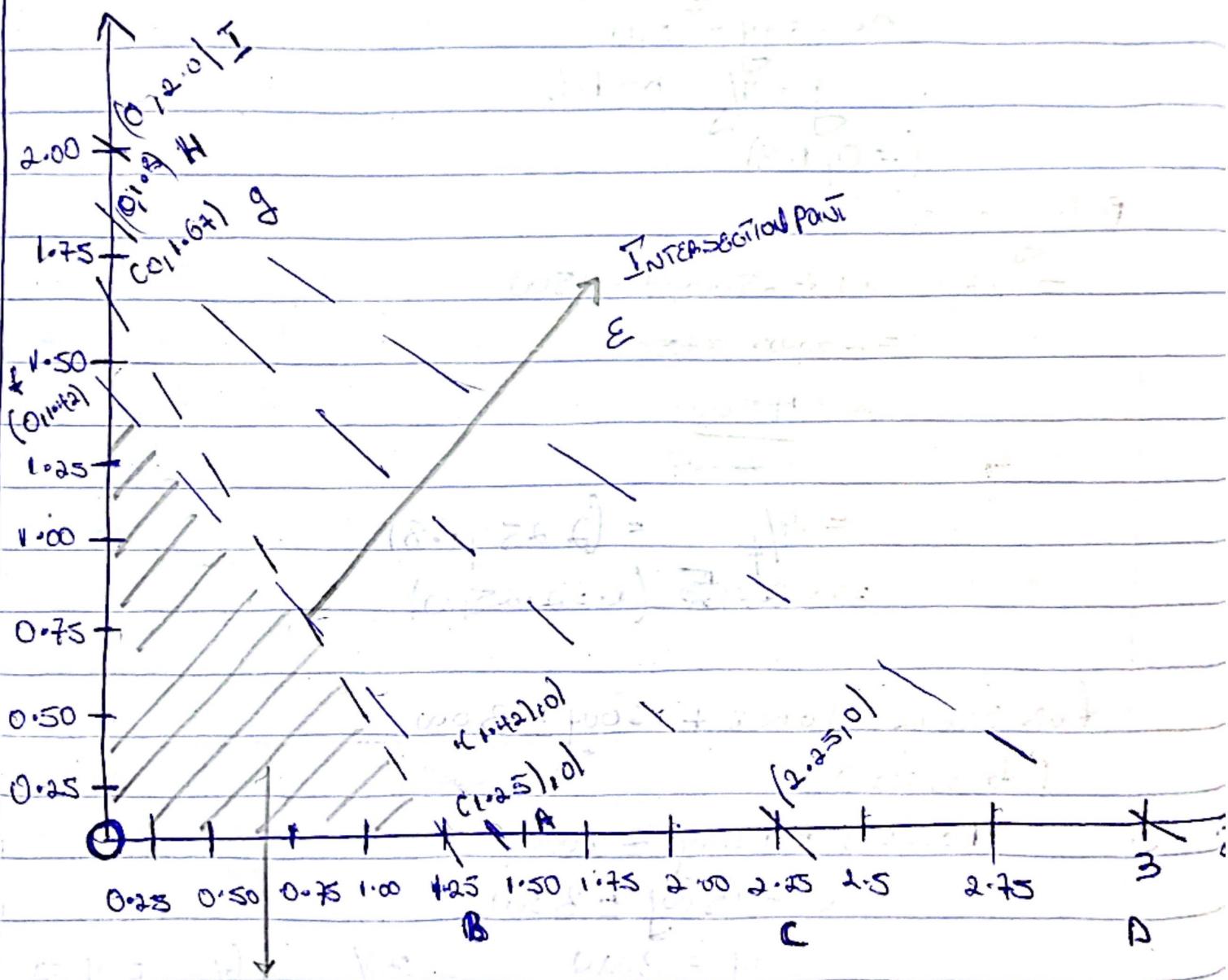
1000

$$\Delta = 3$$

$$S_0 x = 3, y = 2$$



1 cm to rep
 SCALE ON \Rightarrow Axis 0.25 unit
 y 1 unit to rep 0.25 unit



FEASIBLE REGION ON GRAPH

EXTREME POINTS

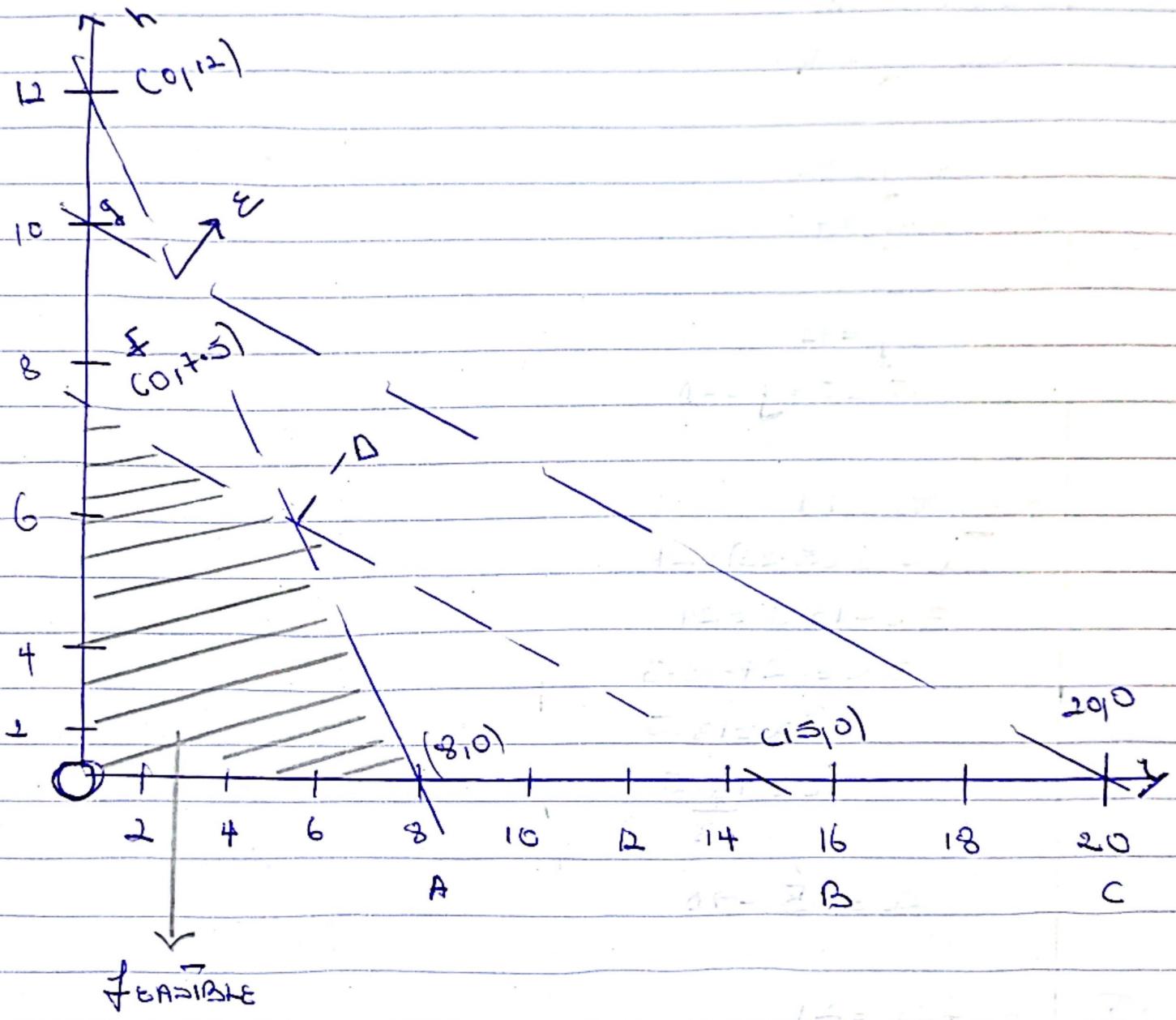
$$15, 7.5 \rightarrow 2x + 4y \leq 30$$

$$8, 12 \rightarrow 3x + 2y \leq 24$$

$$20, 10 \rightarrow x + 2y \leq 20$$

x → 1cm to rep unit

y → 1cm to rep unit



CO-ORDINATES

0, 0

A(8, 0)

B(15, 0)

C(0, 12)

FEASIBLE REGION

$$2x + 4y \leq 30 \quad 3x + 2y \leq 24$$

$$x + 2y \leq 20$$

$$x \leq 24$$