

5

$x_1$ : # producido en A  
 $x_2$ : # producido en B

máxima  $8000x_1 + 12000x_2$

$$3x_1 + 4x_2 \leq 60$$

$$x_1 + 3x_2 \leq 30$$

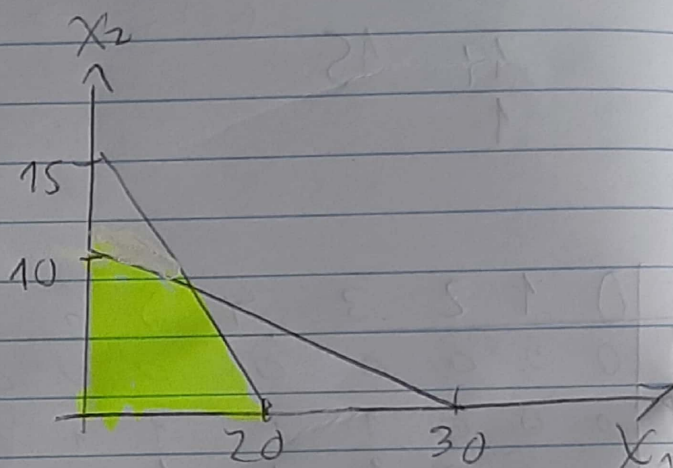
$$x_1 \geq 0$$

$$x_2 \geq 0$$

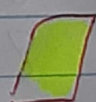
$K=1000$  como meta

$$\begin{array}{ccccc|c} x_1 & x_2 & s_1 & s_2 & b \\ \hline 3 & 4 & 1 & 0 & 60 \\ 1 & 3 & 0 & 1 & 30 \\ -8000 & 0 & 0 & 0 & 0 \end{array} \quad R_2 \times \frac{1}{2}$$

$$\begin{array}{ccccc|c} 3 & 4 & 1 & 0 & 60 \\ 1/3 & 1 & 0 & 1/3 & 10 \\ -1000 & 0 & 0 & 0 & 0 \end{array} \quad \begin{array}{l} -4R_2 + R_1 \\ 12000R_2 + R_3 \end{array}$$



$$\begin{array}{ccccc|c} 5/3 & 0 & 1 & -4/3 & 20 \\ 1/3 & 1 & 0 & 1/3 & 10 \\ -4000 & 0 & 0 & 4000 & 120K \end{array} \quad \frac{3}{5} R_1$$

 = feasible region

$$\begin{array}{ccccc|c} 1 & 0 & 3/5 & -4/5 & 12 \\ 1/3 & 1 & 0 & 1/3 & 10 \\ -4000 & 0 & 0 & 4K & 120K \end{array}$$

$$\begin{array}{ccccc|c} 1 & 0 & 3/5 & -4/5 & 12 \\ 0 & 1 & -1/5 & 3/5 & 6 \\ 0 & 0 & 2.4K & 800 & 168K \end{array} \quad \begin{array}{l} R_1 \times (-\frac{1}{3}) + R_2 \\ R_1 \times (4000) + R_3 \end{array}$$

Producir 12 items A y  
 6 items B genera una  
 ganancia máxima de 168000.