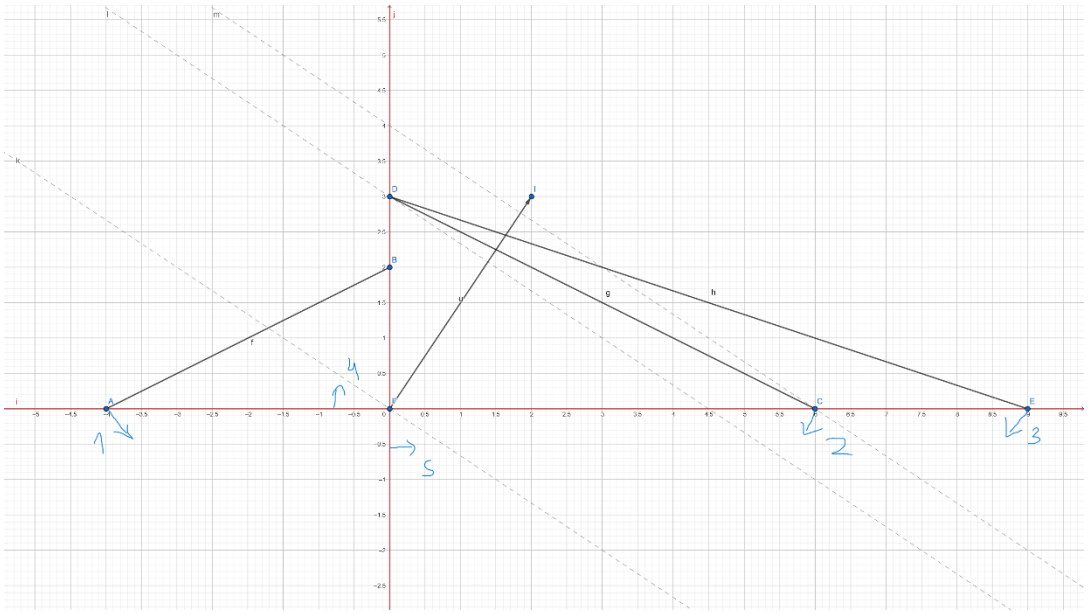
1.1-



Maximizar: LUCRO = 2x1 + 3x2

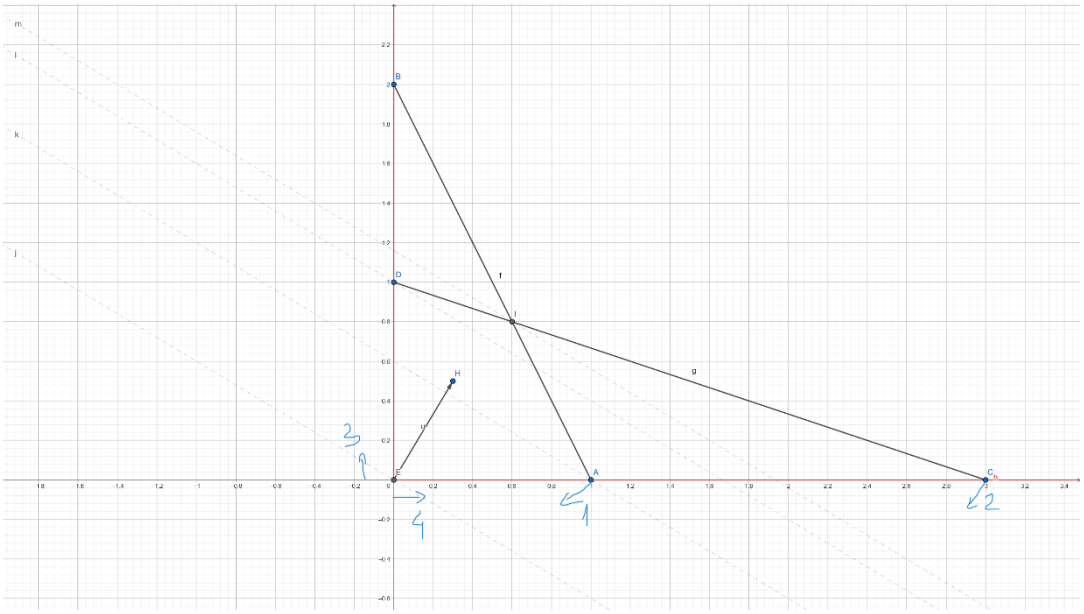
X1 = 6; x2 = 0

LUCRO = 12 *

X1 = 0; x2 = 3

LUCRO = 9

1.2 –



Maximizar: RECEITA = 0.3 x1 + 0.5 x2

X1 = 1; x2 = 0

RECEITA = 0.3

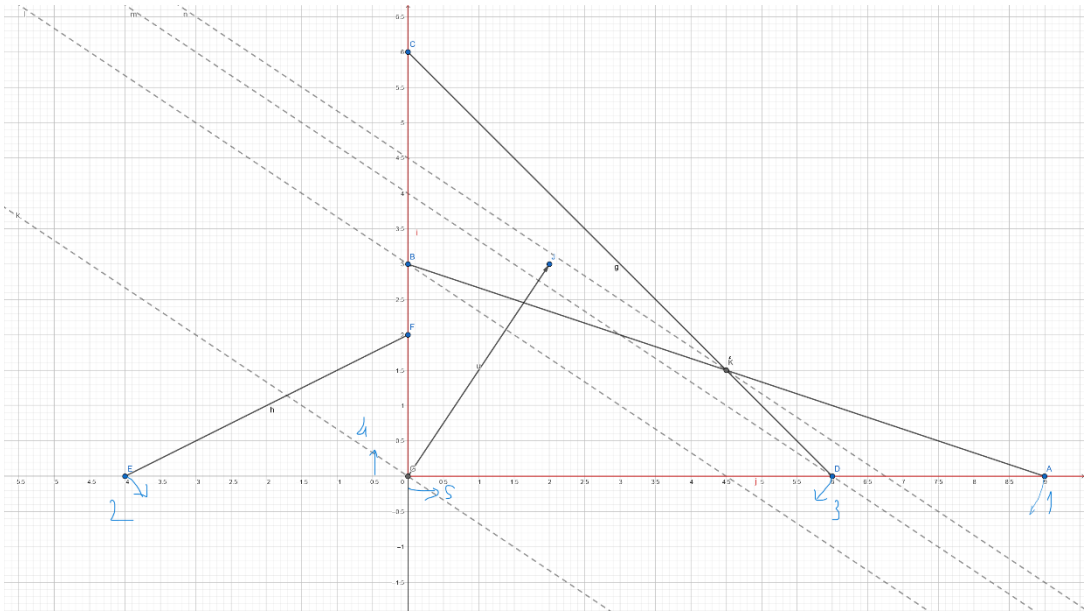
X1 = 0; x2 = 1

RECEITA = 0.5

X1 = 0.6; x2 = 0.8

RECEITA = 0.58 *

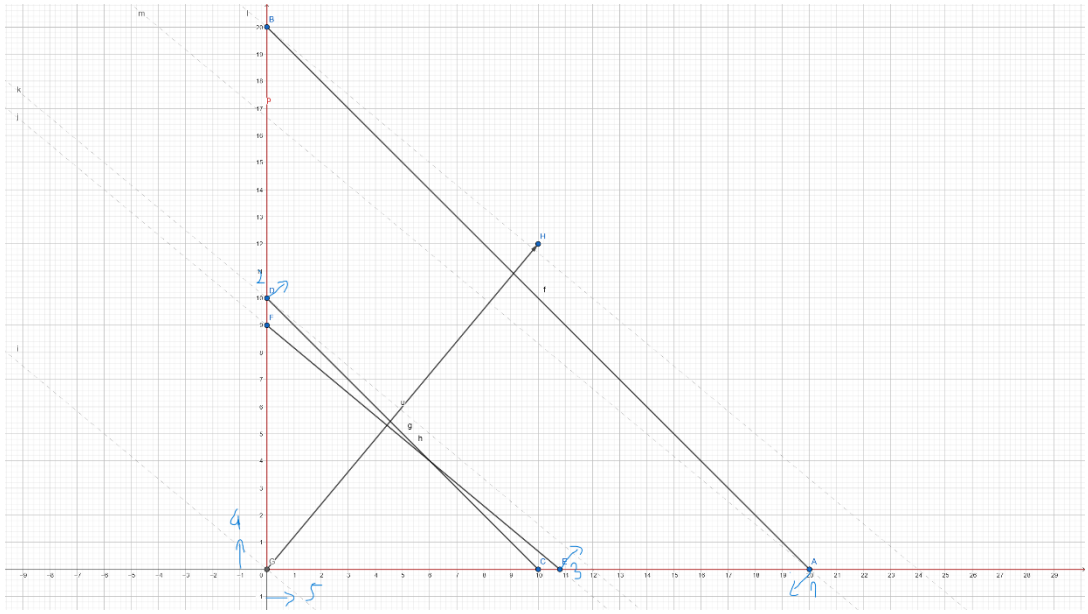
1.3 –




Maximizar: LUCRO = 2x1 + 3x2

| | | |
|---|---|---|
| X1 = 6; x2 = 0 | X1 = 0; x2 = 3 | X1 = 4.5; x2 = 1.5 |
| LUCRO = 12 | LUCRO = 9 | LUCRO = 13.5 * |

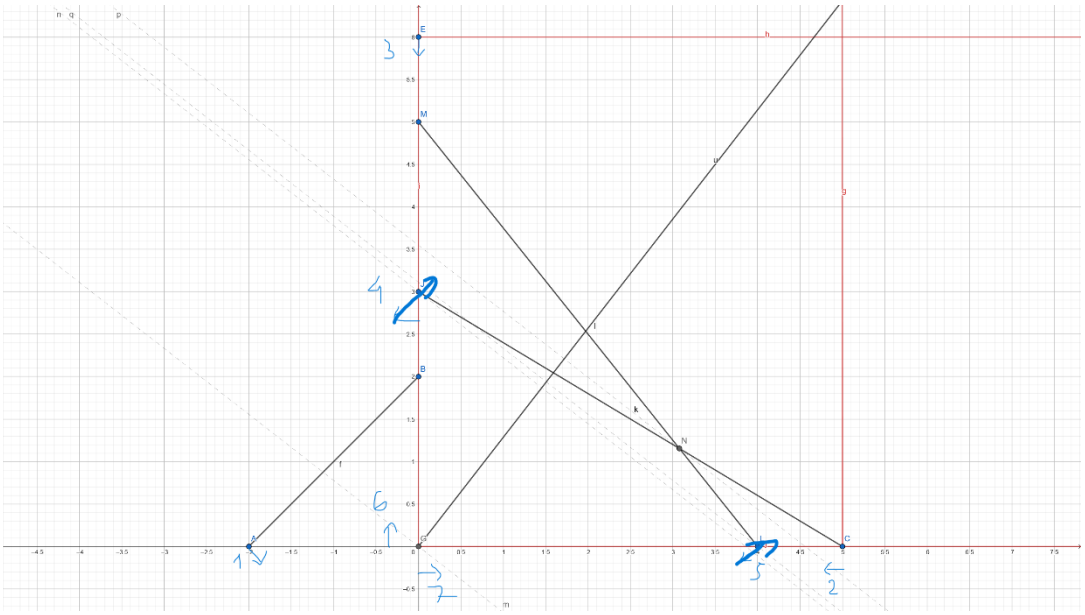
1.4 –




Minimizar: CUSTO = 10 x1 + 12 x2

| | | |
|---|---|---|
| X1 = 0; x2 = 10 | X1 = 6; x2 = 4 | X1 = 10.8; x2 = 0 |
| CUSTO = 120 | CUSTO = 108* | CUSTO = 108 * |

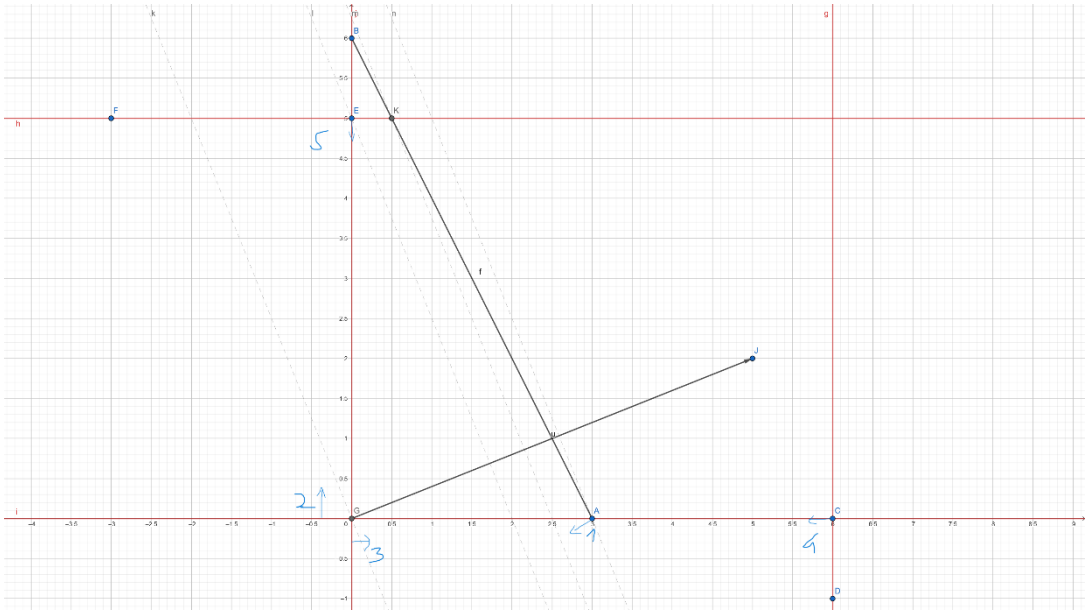
1.5 –



Minimizar: Z = 7 x1 + 9 x2

| | | |
|---|---|---|
| X1 = 0; x2 = 5 | X1 = 5; x2 = 0 | X1 = 3.1; x2 = 1.2 |
| Z = 45 | Z = 35 | Z = 32 * |

2 –

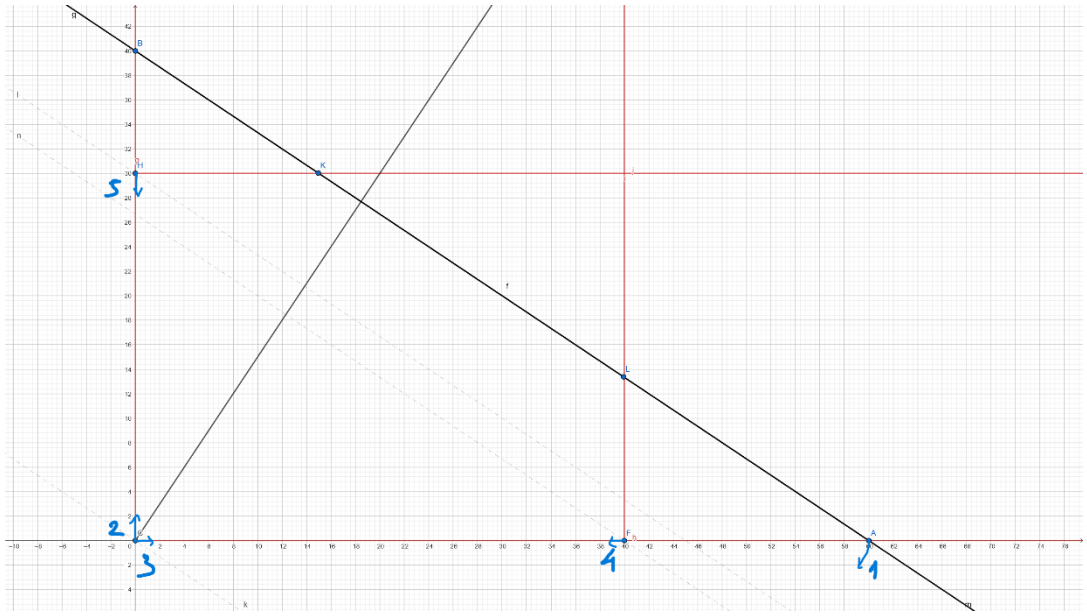


Maximizar: LUCRO = 5 x1 + 2 x2

| | |
|---|---|
| X1 = 0; x2 = 5 | X1 = 3; x2 = 0 |
| LUCRO = 10 | LUCRO = 15* |

Ociosidade de 30 min/hora

3 –

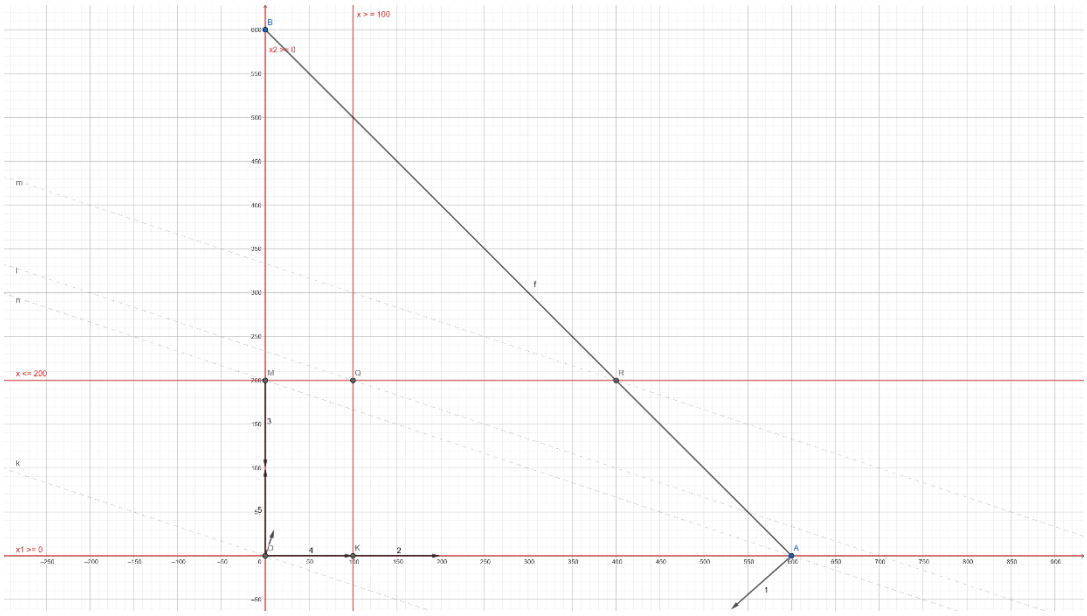



Maximizar: LUCRO = 100 x1 + 150 x2

| | | | |
|---|---|---|---|
| X1 = 0; x2 = 30 | X1 = 40; x2 = 0 | X1 = 15; x2 = 30 | X1 = 40; x2 = 13 |
| LUCRO = 4500 | LUCRO = 4000 | LUCRO = 6000* | LUCRO = 5950 |

Ociosidade demanda P1 = 25 unidades

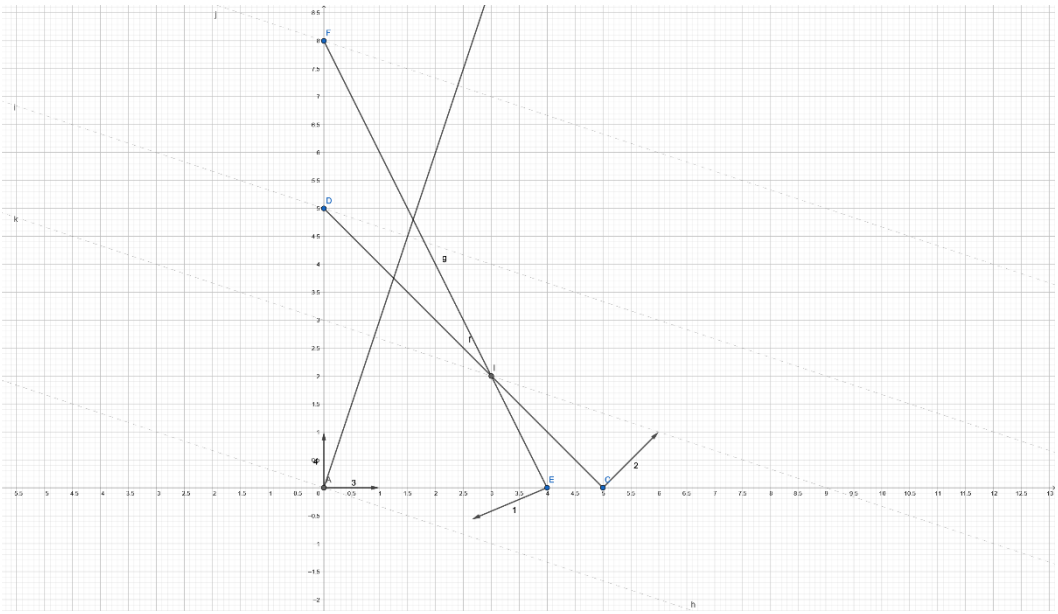
4 –




Maximizar: LUCRO = 10 x1 + 30 x2 + 4000

| | | |
|---|---|---|
| X1=100; x2=200 | X1 = 400; x2 = 200 | X1 = 600; x2 = 0 |
| LUCRO = 11000 | LUCRO = 14000* | LUCRO = 10000 |

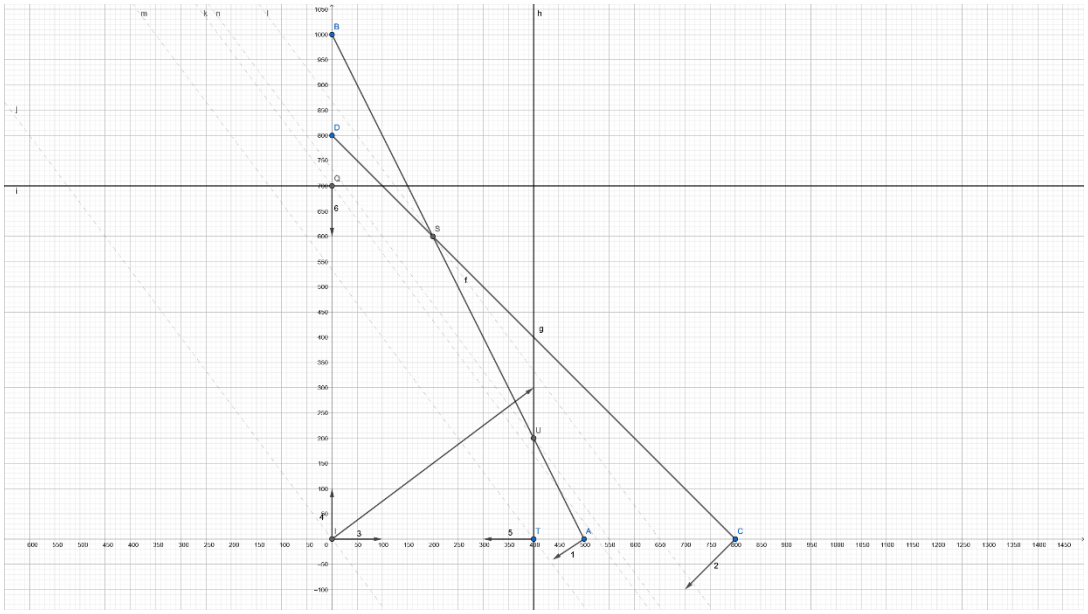
5 –




Maximizar: TELE = 30000 x1 + 10000 x2

| | | |
|---|---|---|
| X1=0; x2=5 | X1 = 0; x2 = 8 | X1 = 3; x2 = 2 |
| TELE = 50000 | TELE = 80000 | TELE = 110000* |

6 –




Maximizar: LUCRO = 4 x1 + 3 x2

| | | | |
|---|---|---|---|
| X1=0; x2=700 | X1 = 200; x2 = 600 | X1= 400; x2= 200 | X1= 400; x2= 0 |
| LUCRO = 2100 | LUCRO = 2600* | LUCRO = 2200 | LUCRO = 1600 |

7 –

7 -

$X_1$ ⇒ dias fábrica 1

$X_2$ ⇒ dias fábrica 2

f.o. minimizar

$X_1 . 1000 + X_2 . 2000$

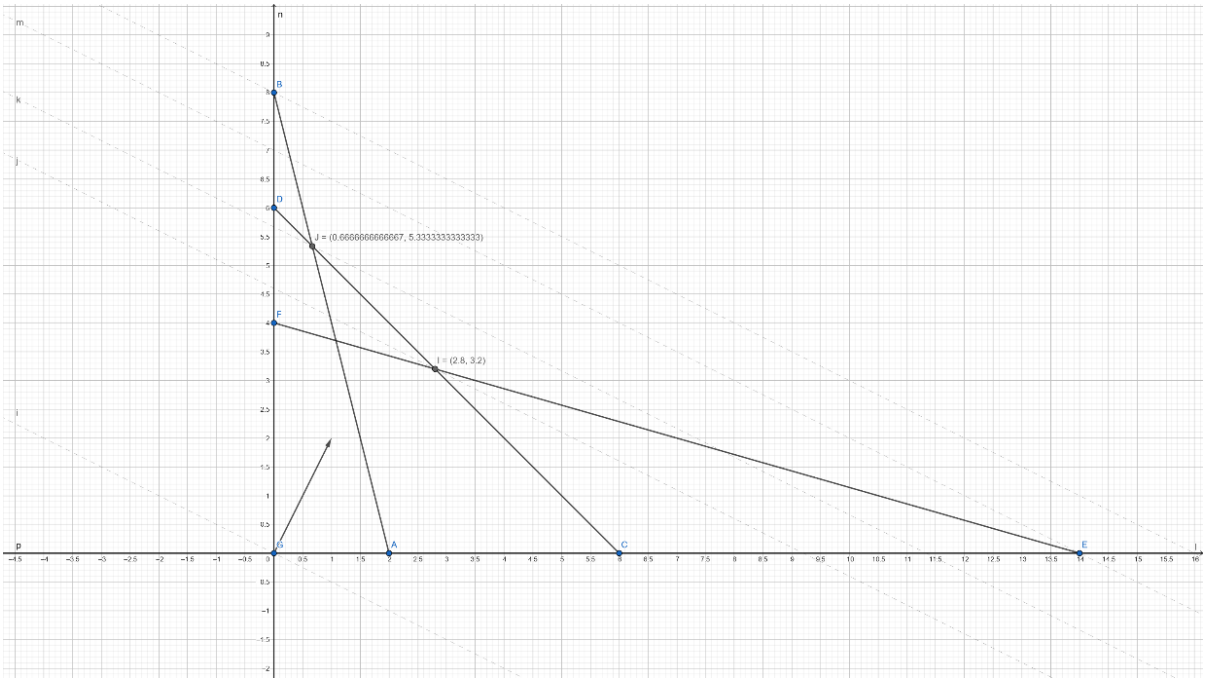
rest.

$X_1 . 8 + X_2 . 2 \geq 16$

$X_1 . 1 + X_2 . 1 \geq 6$

$X_1 . 2 + X_2 . 7 \geq 28$

$X_1 , X_2 \geq 0$




Minimizar: MINIMIZAR = 1000 x1 + 2000 x2

X1=0.67; x2=5.33 X1 = 2.8; x2 = 3.2

LUCRO = 11330 LUCRO = 9200*

8 –

8 -

$X_1 \rightarrow$ nº de caminhões do tipo A

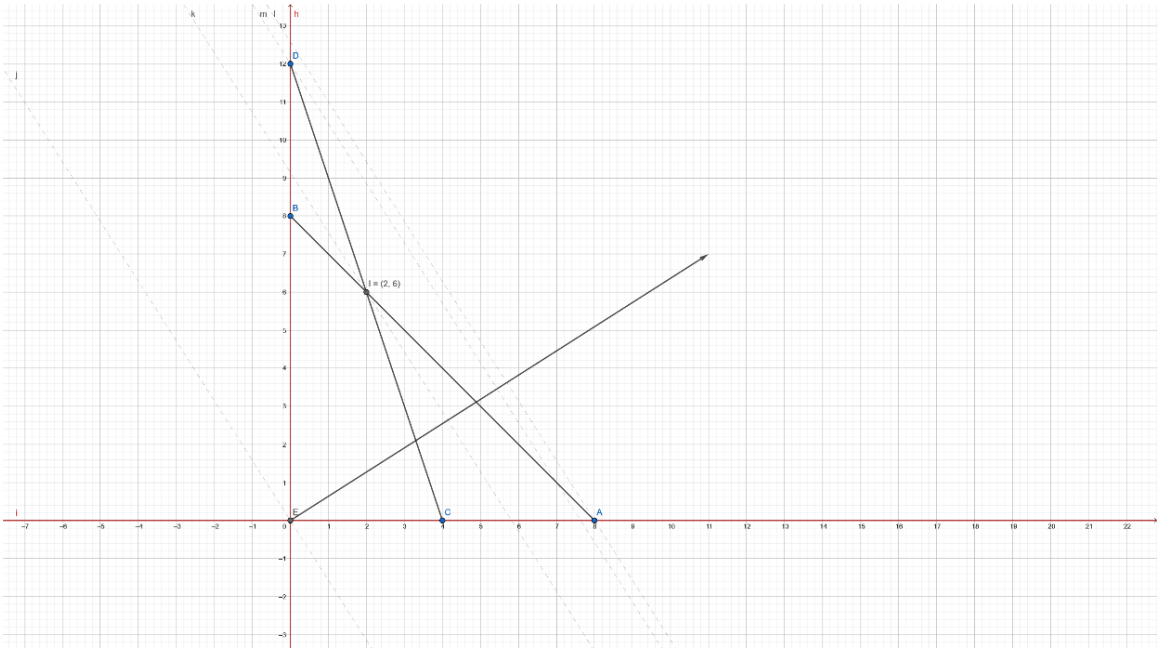
$X_2 \rightarrow$ nº de caminhões do tipo B

fo. minimizar

$$X_1 \cdot 1100 + X_2 \cdot 700$$

rest.

$$X_1 \cdot 2 + X_2 \cdot 2 \geq 16$$
$$X_1 \cdot 3 + X_2 \cdot 1 \geq 12$$
$$X_1, X_2 \geq 0$$




MINIMIZAR: CUSTO = 1100 x1 + 750 x2

X1=2 x2=6

CUSTO = 6700*

9.1 –

9 -

$X_1$ → quantidade de $P_1$

$X_2$ → quantidade de $P_2$

A)

F.O MAXIMIZAR

$X_1 \cdot 1900 + X_2 \cdot 2100$

rest.

$X_1 \cdot 4 + X_2 \cdot 2 \leq 20$

$X_1 \cdot 2 + X_2 \cdot 3 \leq 10$

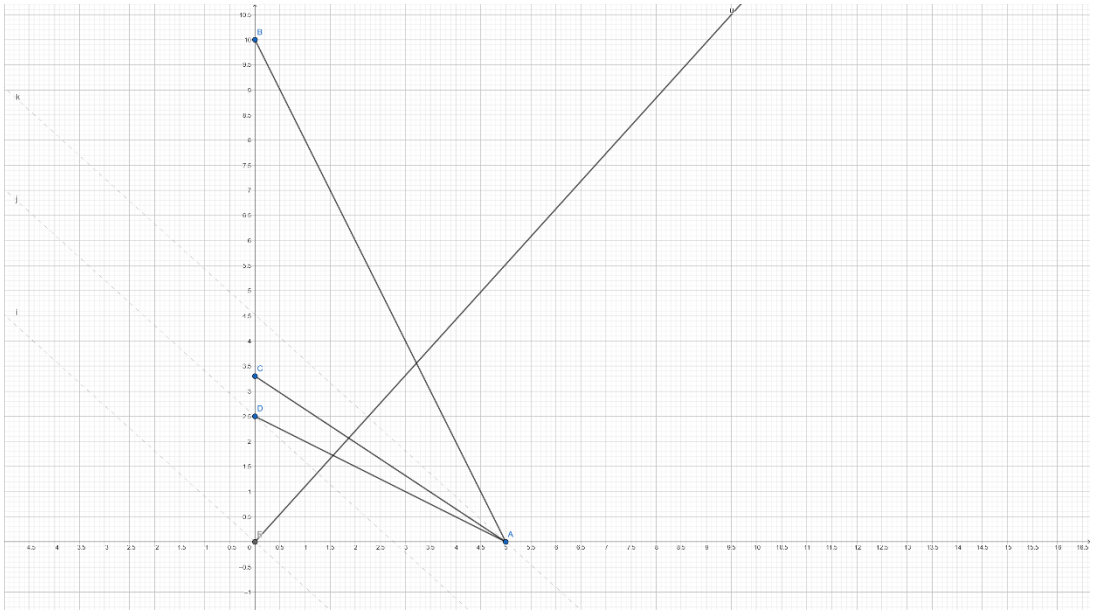
$X_1 \cdot 100 + X_2 \cdot 200 \leq 500$

$X_1, X_2 \geq 0$

B)

$X_1 \cdot (1900 - 600 - 200 - 100) + X_2 (2100 - 300 - 300 - 200)$

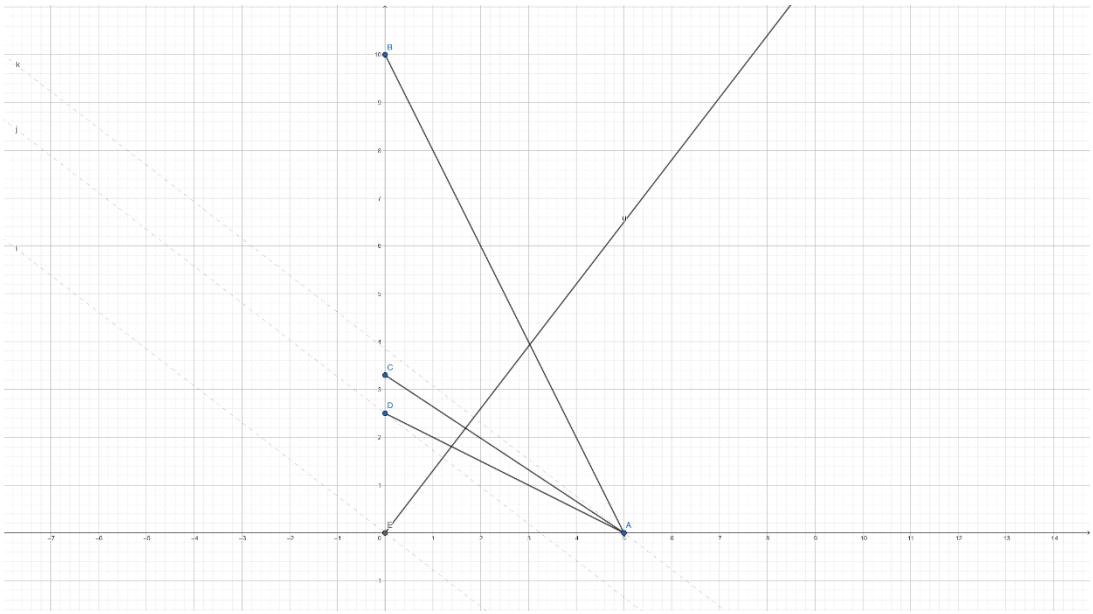
$X_1 \cdot 1000 + X_2 \cdot 1300$




Maximizar: LUCRO = 1900 x1 + 2100 x2

| | | |
|---|---|---|
| X1=0; x2=3.3 | X1 = 0; x2 = 2.5 | X1= 5; x2= 0 |
| LUCRO = 6930 | LUCRO = 5250 | LUCRO = 9500* |

9.2 –

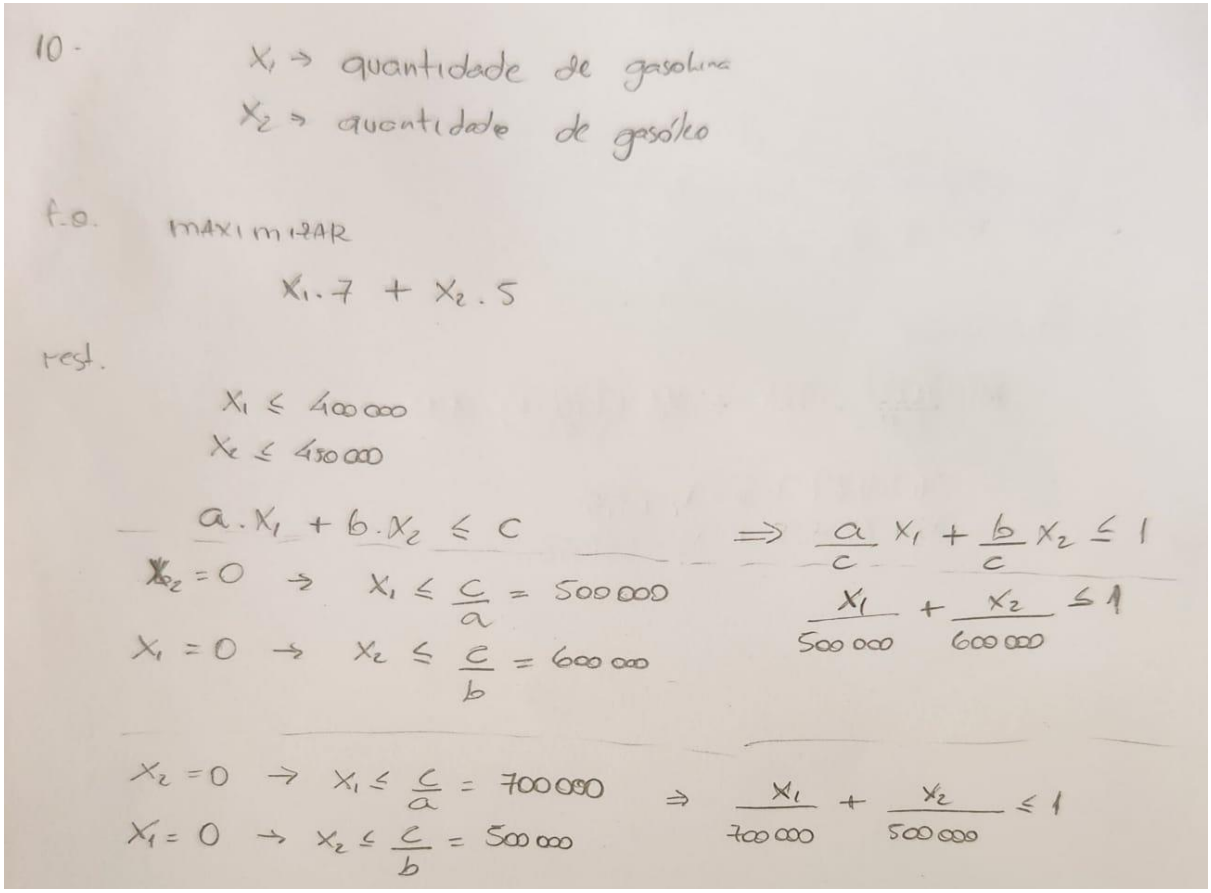


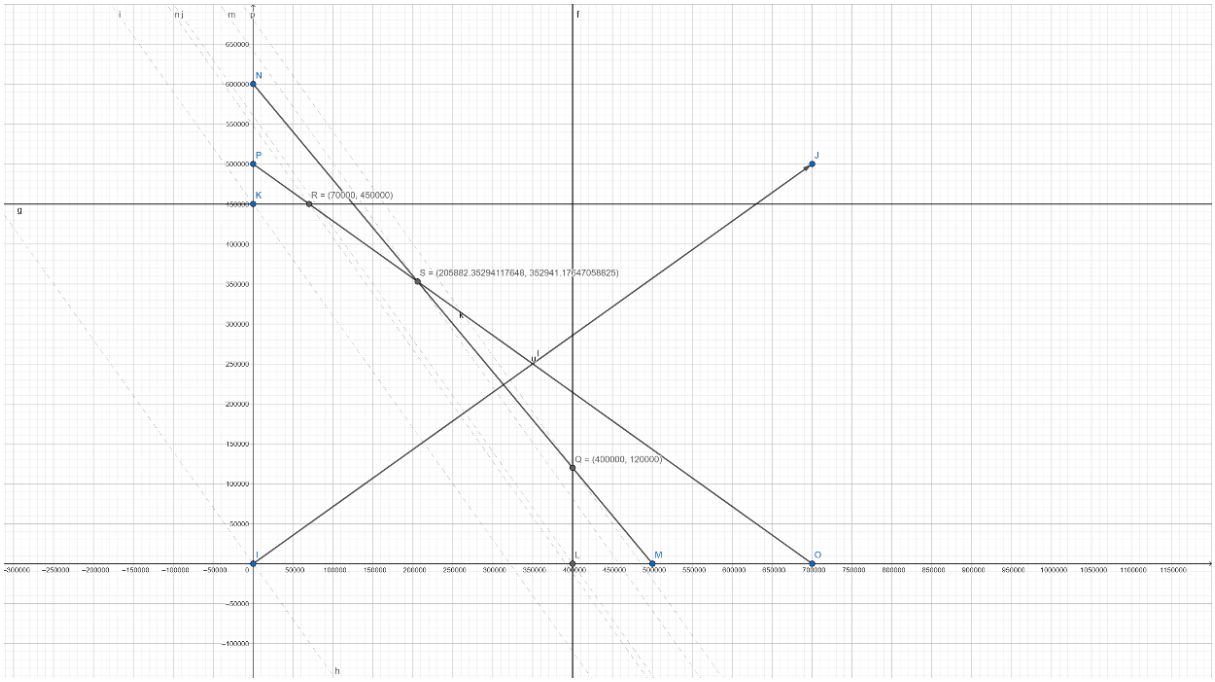

Maximizar: LUCRO = 1000 x1 + 1300 x2

X1=0; x2=3.3 X1 = 0; x2 = 2.5 X1= 5; x2= 0

LUCRO = 42900 LUCRO = 3250 LUCRO = 5000*

10 –






Maximizar: LUCRO = 7 x1 + 5 x2

X1=70K;x2=450K

LUCRO=2740000

X1=206K;x2=353K

LUCRO=3207000

X1=400K;x2=120K

LUCRO=3400000