

EX 2.1.6 pag 25.

x_{SP} - N° DE DIAS DA FABRICA DE SP

x_{RJ} - N° DE DIAS DA FABRICA DE RJ

$$\text{MIN } \{ \text{CUSTO} = 100000 x_{SP} + 200000 x_{RJ} \} \quad (4)$$

$$\text{LÂMINA FINA} \quad 8x_{SP} + 2x_{RJ} \geq 16 \quad (3)$$

$$\text{LÂMINA MEDIA} \quad x_{SP} + x_{RJ} \geq 6 \quad (2)$$

$$\text{LÂMINA GROSSA} \quad 2x_{SP} + 7x_{RJ} \geq 28 \quad (1)$$

$$(1) \quad 2x_{SP} + 7x_{RJ} \geq 28$$

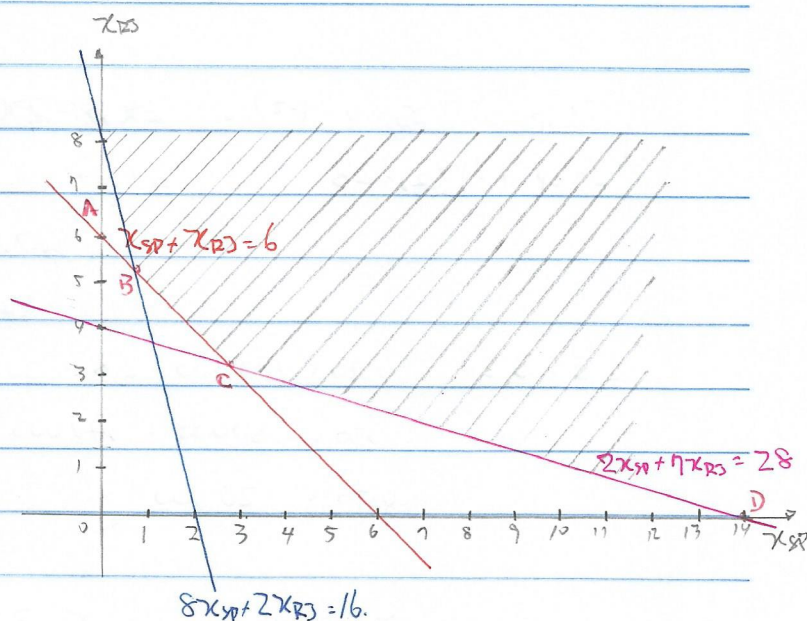
$$2x_{SP} + 7x_{RJ} = 28 \text{ - RETA}$$

x_{SP}	x_{RJ}
0	4
14	0

$$(2) \quad x_{SP} + x_{RJ} \geq 6$$

$$x_{SP} + x_{RJ} = 6 \text{ - RETA}$$

x_{SP}	x_{RJ}
0	6
6	0



$$(3) \quad 8x_{SP} + 2x_{RJ} \geq 16$$

$$8x_{SP} + 2x_{RJ} = 16 \text{ - RETA}$$

x_{SP}	x_{RJ}
0	8
2	0

$$\text{MIN CUSTO} = 100000 X_{SP} + 200000 X_{RJ}$$

$$A(0,8) - \text{CUSTO} = 100000 \cdot 0 + 200000 \cdot 8$$

$$\text{CUSTO} = 1600000$$

$$D(14,0) - \text{CUSTO} = 100000 \cdot 14 + 200000 \cdot 0$$

$$\text{CUSTO} = 1400000$$

$$B \begin{cases} X_{SP} + X_{RJ} = 6 \quad (-2) \Rightarrow -2X_{SP} - 2X_{RJ} = -12 & X_{SP} + X_{RJ} = 6 \\ 8X_{SP} + 2X_{RJ} = 16 & 8X_{SP} + 2X_{RJ} = 16 \end{cases}$$

$$6X_{SP} = 4$$

$$X_{RJ} = 5,33$$

$$X_{SP} = 0,67$$

$$B(0,67; 5,33) - \text{CUSTO} = 100000 \cdot 0,67 + 200000 \cdot 5,33$$

$$\text{CUSTO} = 67000 + 1066000$$

$$\text{CUSTO} = 1133000$$

$$C \begin{cases} X_{SP} + X_{RJ} = 6 \quad (-2) \Rightarrow -2X_{SP} - 2X_{RJ} = -12 & X_{SP} + X_{RJ} = 6 \\ 2X_{SP} + 7X_{RJ} = 28 & 2X_{SP} + 7X_{RJ} = 28 \end{cases}$$

$$5X_{RJ} = 16$$

$$X_{SP} = 2,8$$

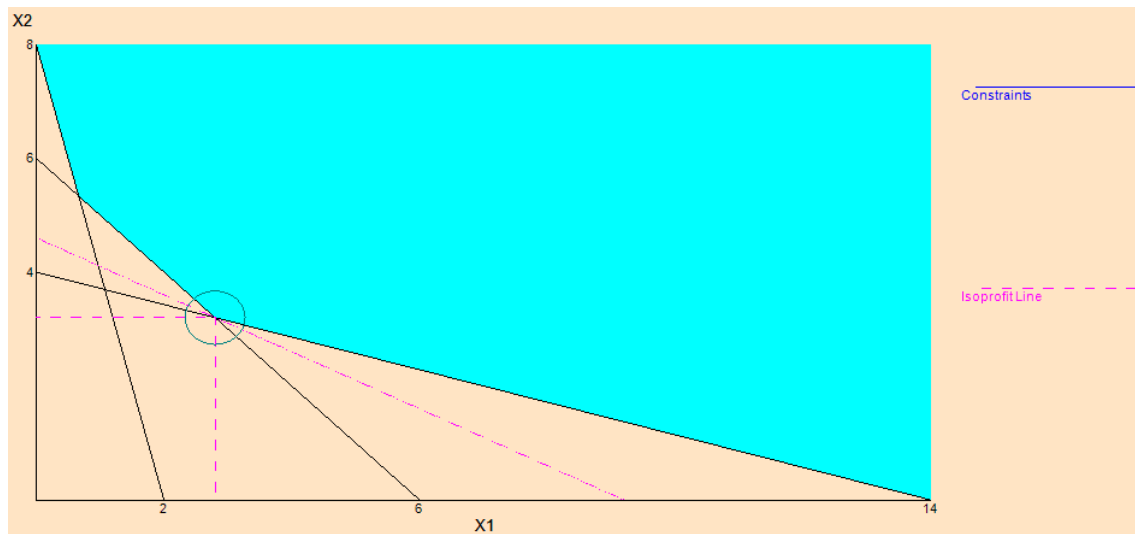
$$X_{RJ} = 3,2$$

$$C(2,8; 3,2) - \text{CUSTO} = 100000 \cdot 2,8 + 200000 \cdot 3,2$$

$$\text{CUSTO} = 280000 + 640000$$

$$\text{CUSTO} = 920000$$

RESPOSTA: SP DEVE OPERAR 2,8 DIAS E RJ 3,2 DIAS PARA TER MENOR CUSTO
NO VALOR DE R\$ 920.000



Constraint Display

☐ Min $100000X_1 + 200000X_2$
☐ $8X_1 + 2X_2 \geq 16$
☐ $1X_1 + 1X_2 \geq 6$
☐ $2X_1 + 7X_2 \geq 28$
☒ none

X1	X2	Z
0	8	1600
14	0	1400
0,66...	5,33...	1133
2,8	3,2	9200