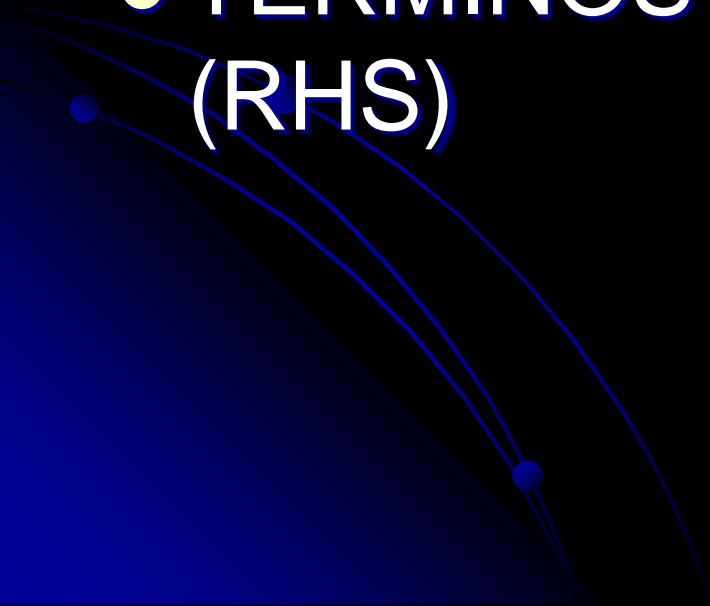
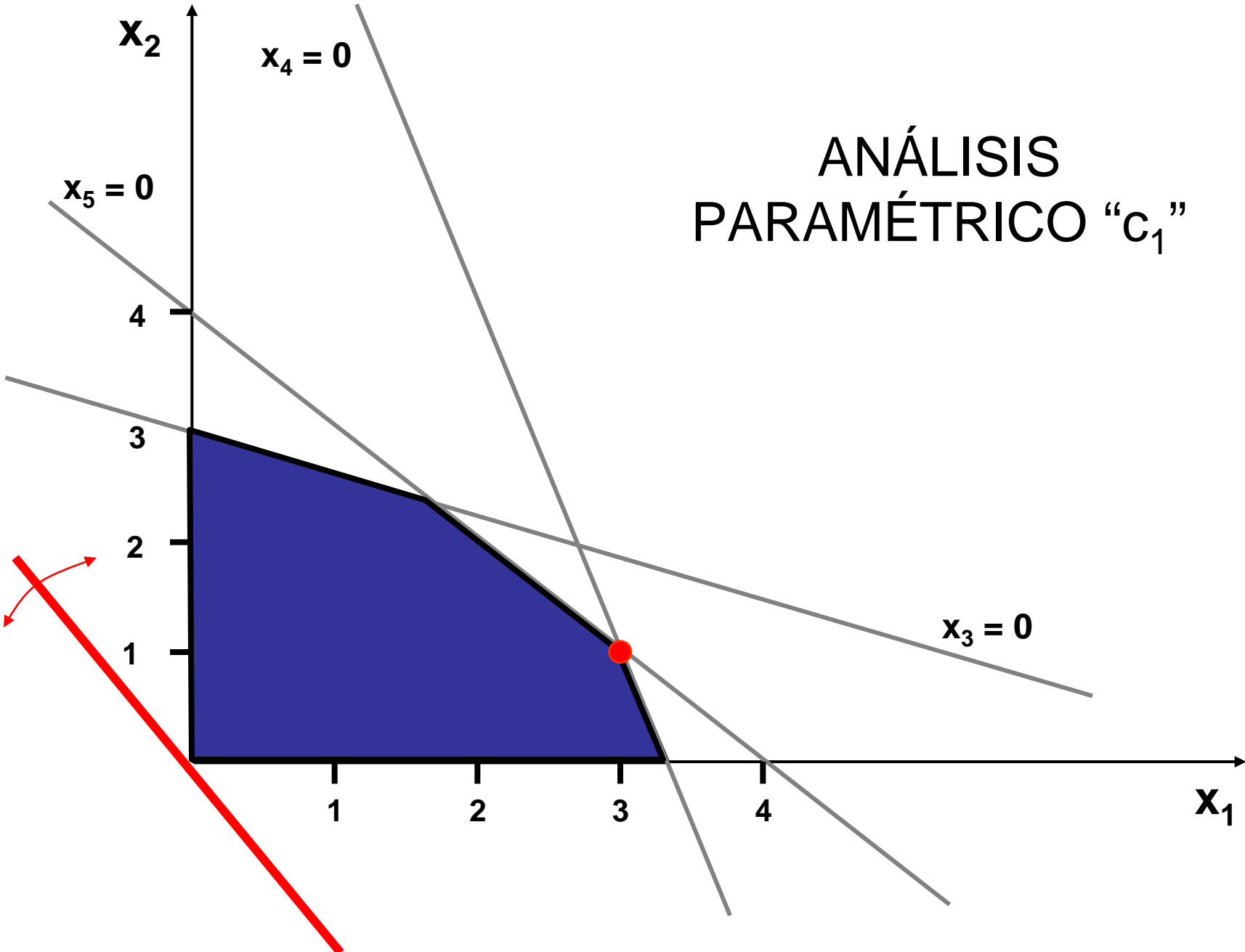


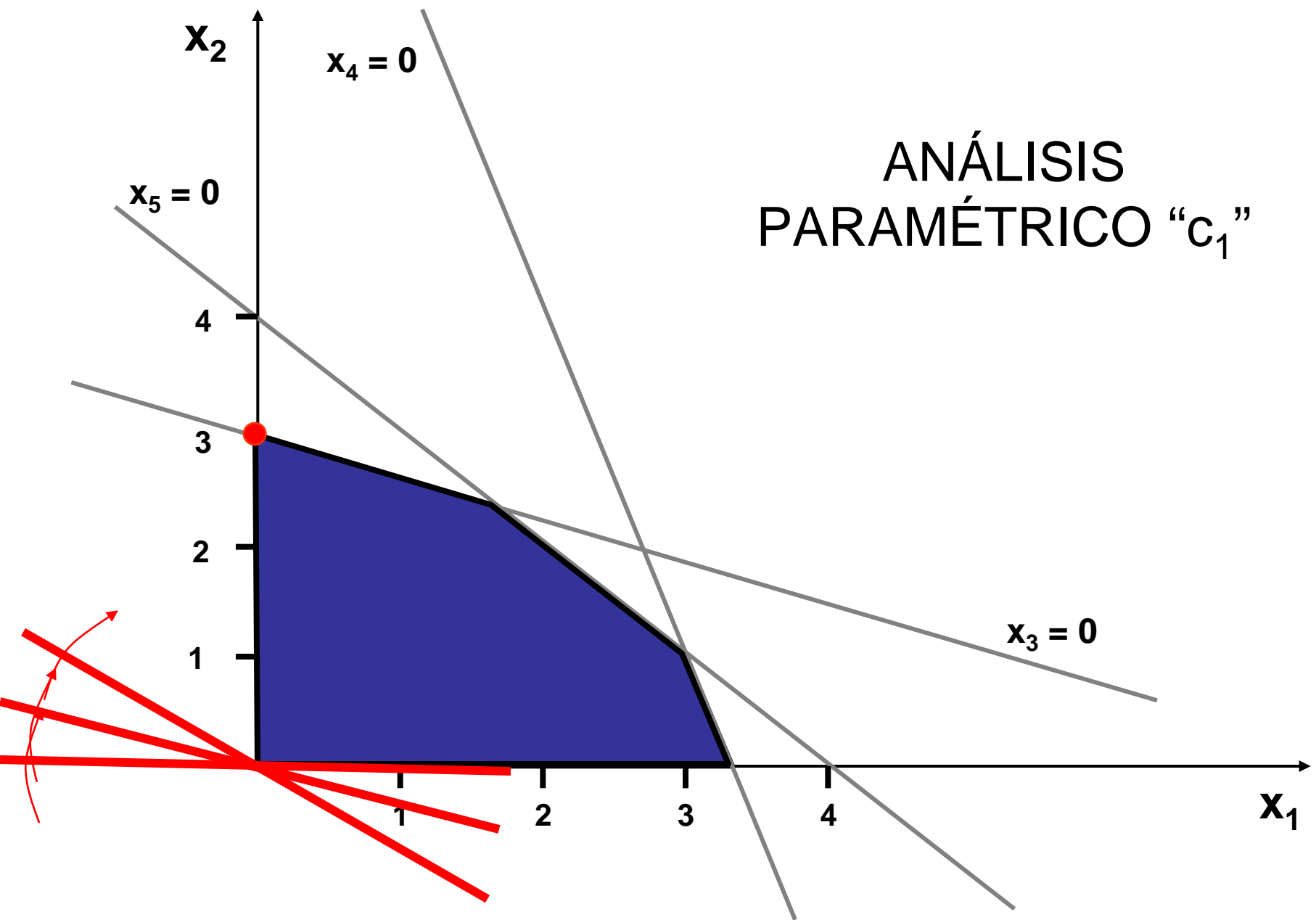
# ANÁLISIS PARAMÉTRICO

- COEFICIENTES DEL FUNCIONAL
  - TÉRMINOS INDEPENDIENTES  
(RHS)
- 

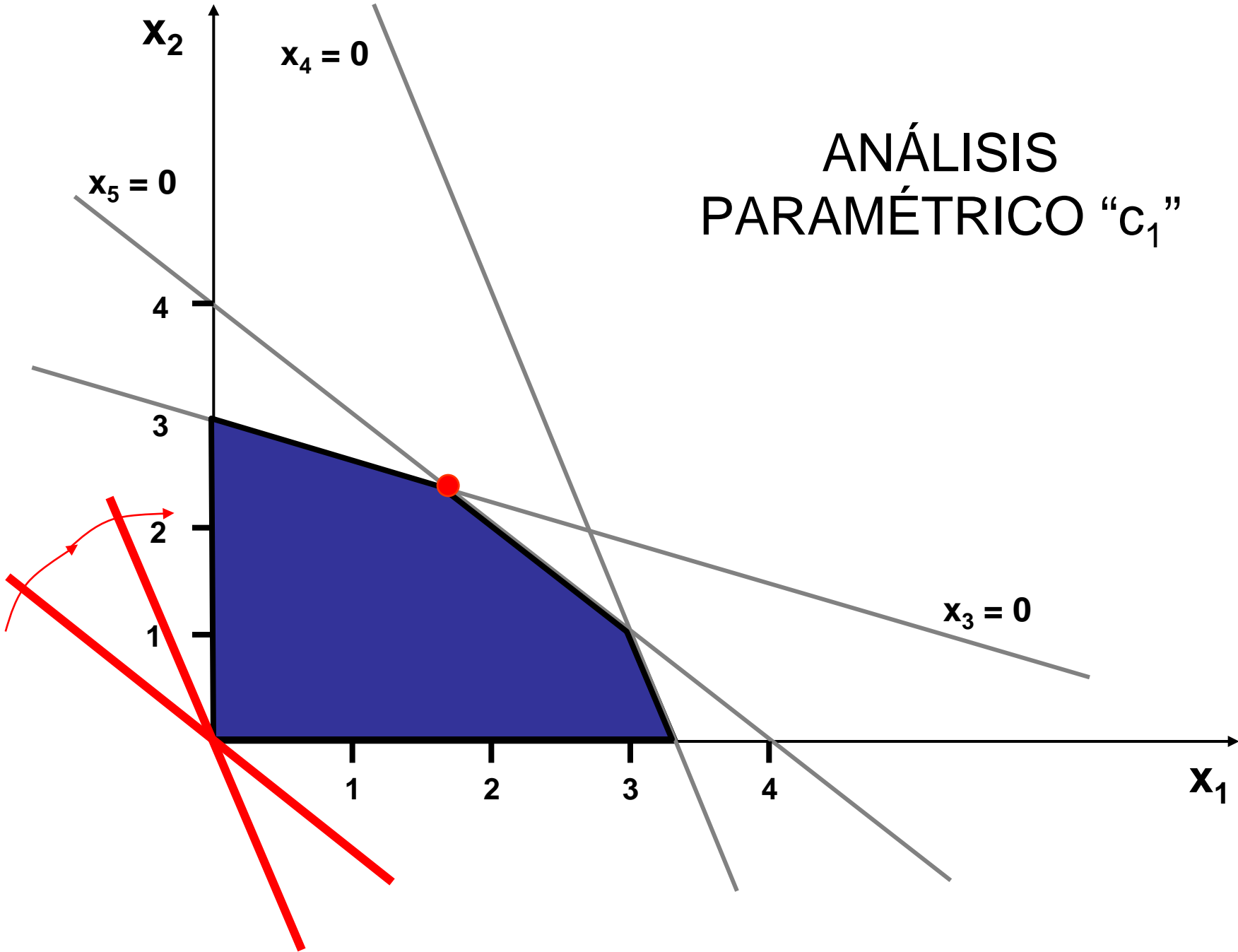
# ANÁLISIS PARAMÉTRICO “ $c_1$ ”



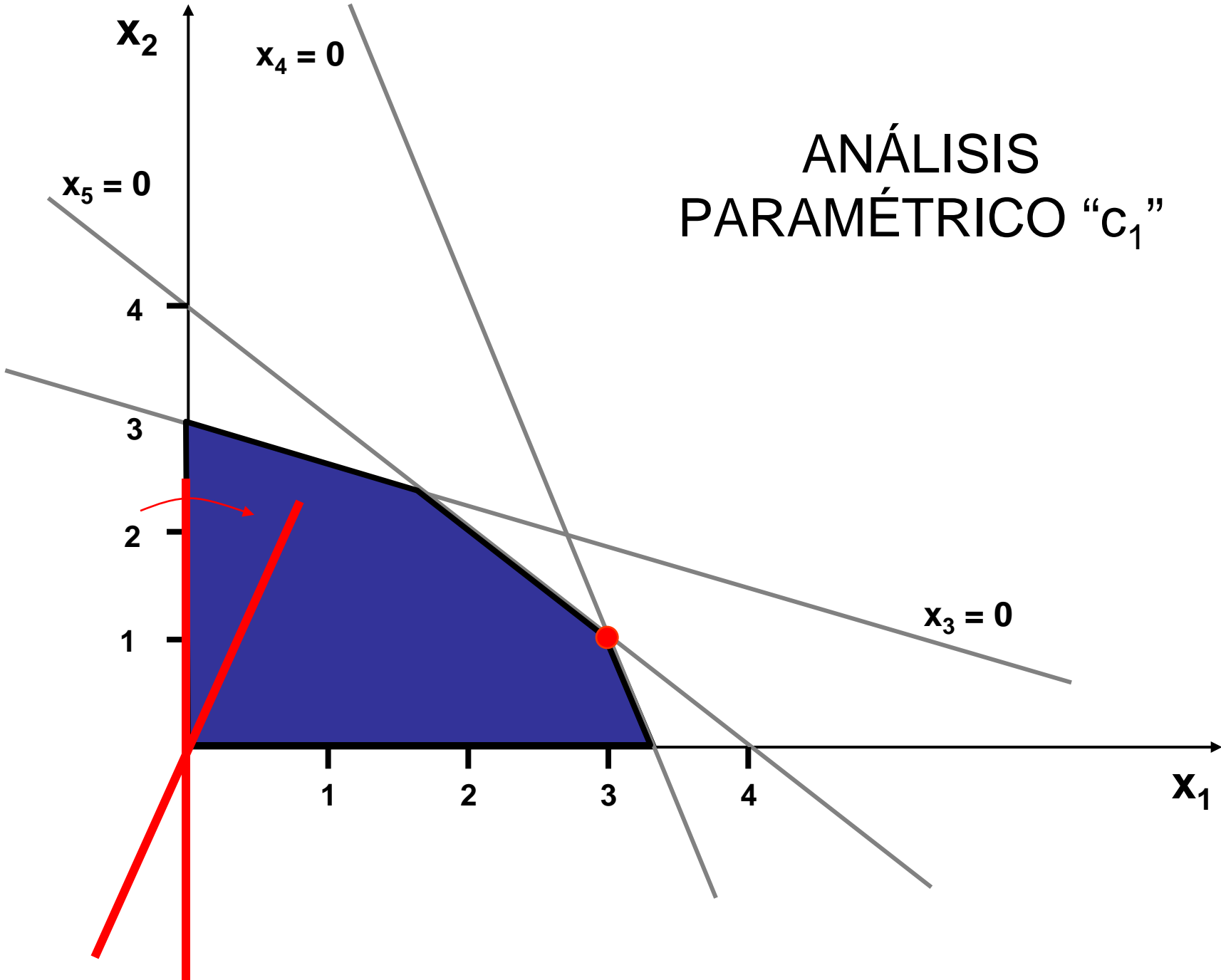
# ANÁLISIS PARAMÉTRICO "C<sub>1</sub>"



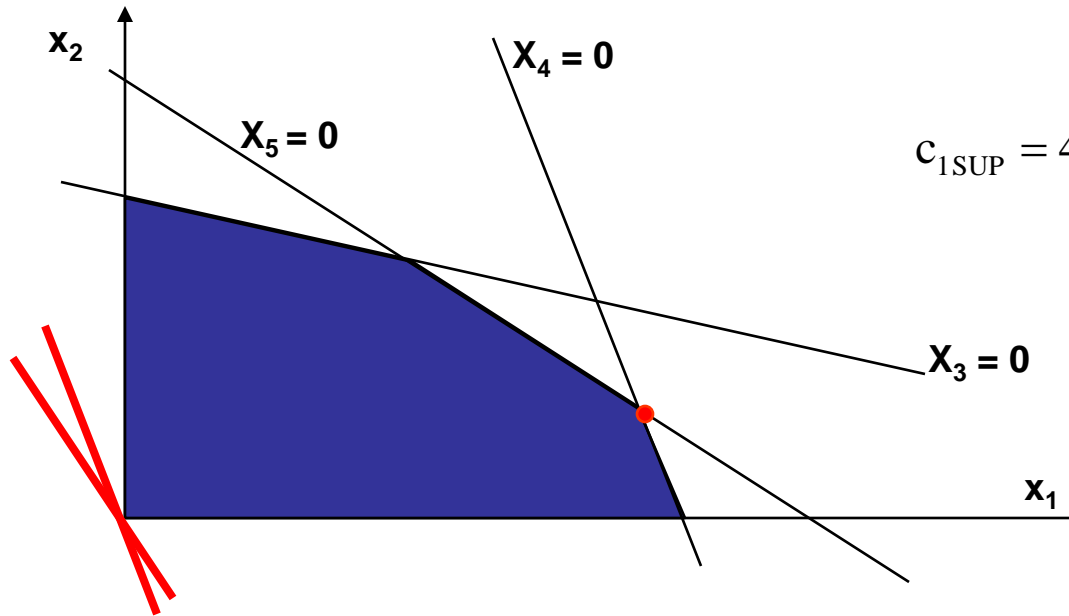
# ANÁLISIS PARAMÉTRICO "C<sub>1</sub>"



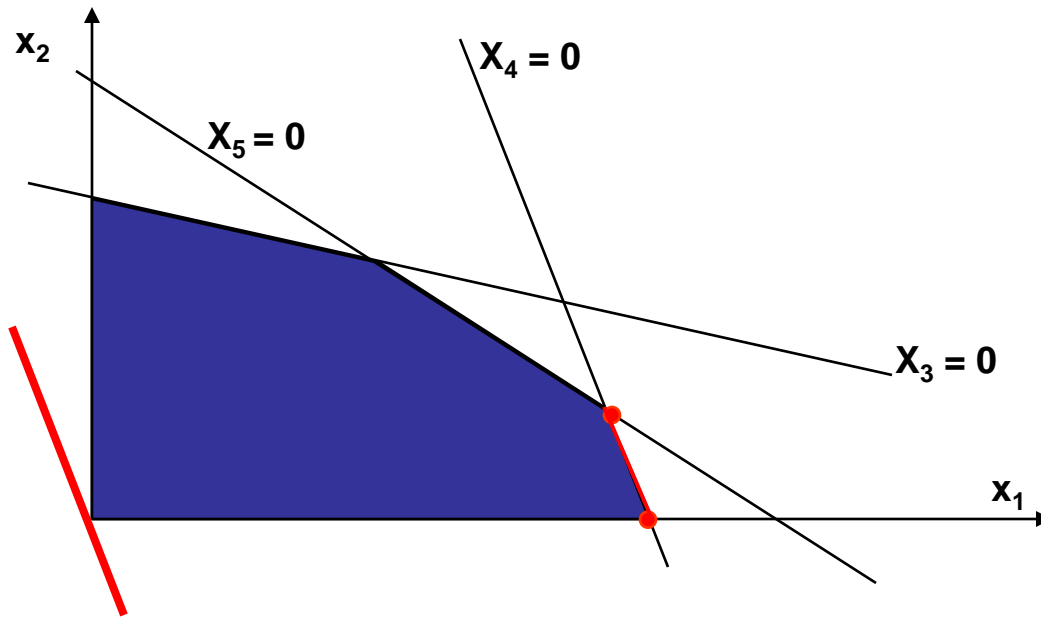
# ANÁLISIS PARAMÉTRICO “ $c_1$ ”



$a_{ij}$	MAX	MIN
SUP.	-	+
INF.	+	-

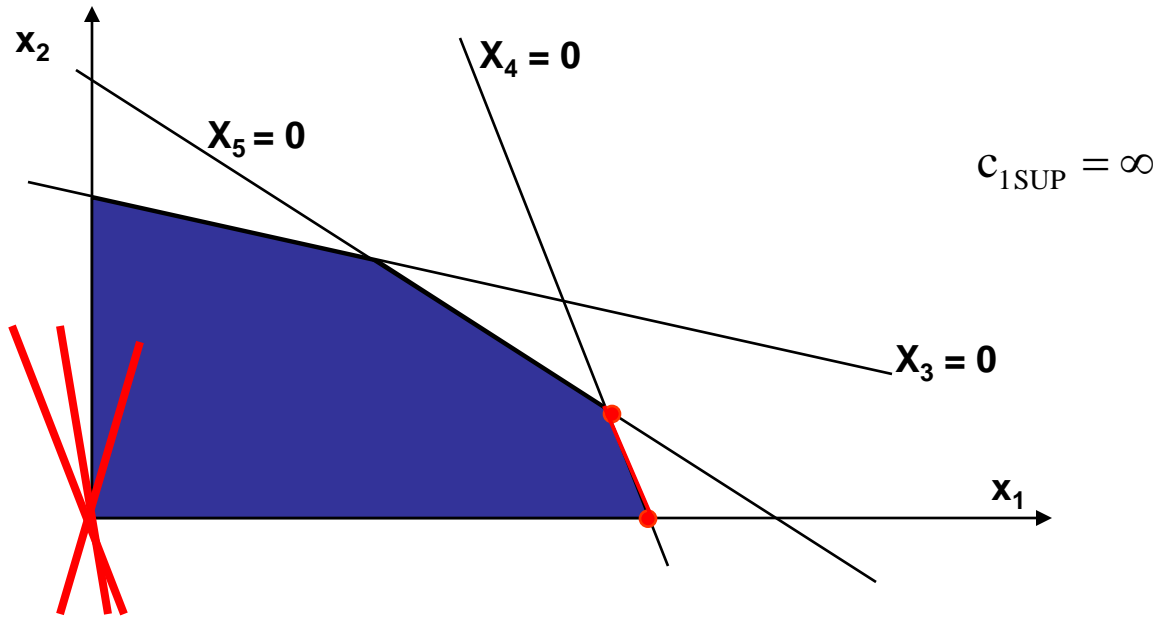


		$c_j$	<del>6</del> 4	3	0	0	0
$c_k$	$x_k$	B	$A_1$	$A_2$	$A_3$	$A_4$	$A_5$
0	$x_3$	14.000			1	5/3	-26/9
<del>6</del> 4	$x_1$	3.000	1			1/6	-1/9
3	$x_2$	1.000		1		-1/6	2/9
Z = 15.000			0	0	0	1/6	2/9
<b>Z = 21.000</b>			<b>0</b>	<b>0</b>	<b>0</b>	<b>1/2</b>	<b>0*</b>



		$c_j$	<del>6</del> 4	3	0	0	0
$c_k$	$x_k$	<b>B</b>	<b>A<sub>1</sub></b>	<b>A<sub>2</sub></b>	<b>A<sub>3</sub></b>	<b>A<sub>4</sub></b>	<b>A<sub>5</sub></b>
0	$x_3$	14.000			1	5/3	-26/9
<del>6</del> 4	$x_1$	3.000	1			1/6	-1/9
3	$x_2$	1.000		1		-1/6	<u>2/9</u>
Z = 15.000			0	0	0	1/6	2/9
Z = 18.000			0	0	0	1/2	0*

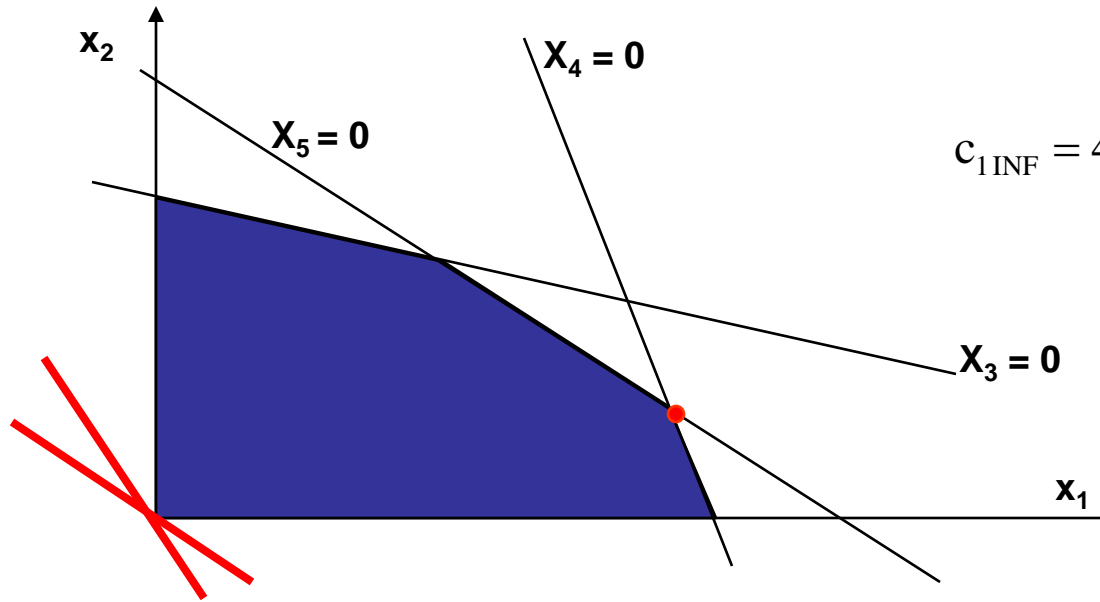
$a_{ij}$	MAX	MIN
SUP.	-	+
INF.	+	-



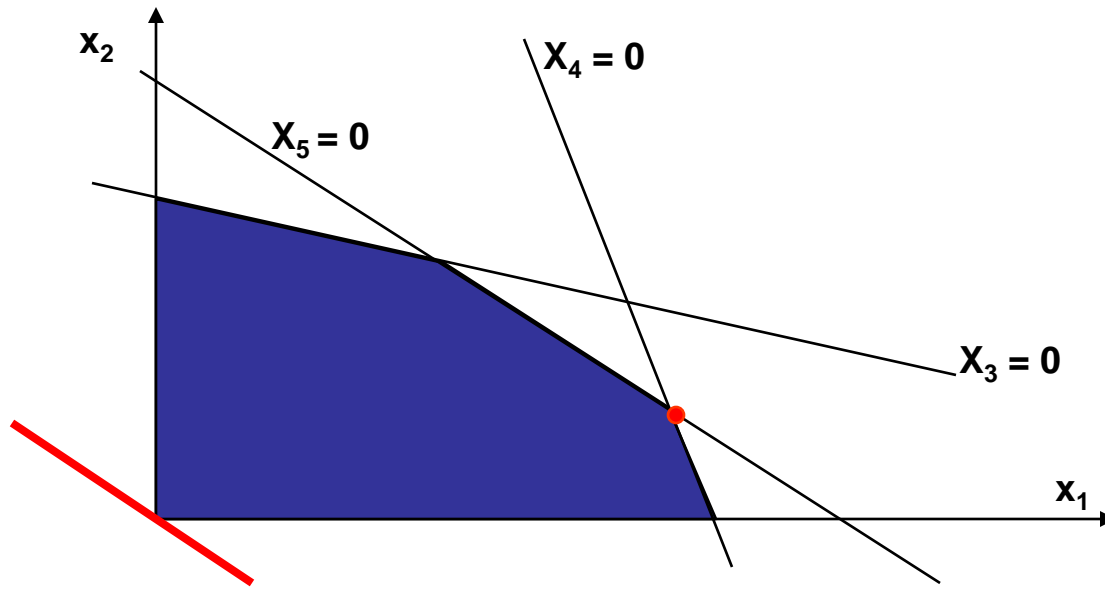
		$C_j$	<del>6</del>	3	0	0	0
$C_k$	$x_k$	<b>B</b>	<b>A<sub>1</sub></b>	<b>A<sub>2</sub></b>	<b>A<sub>3</sub></b>	<b>A<sub>4</sub></b>	<b>A<sub>5</sub></b>
0	$x_3$	27.000		13	1	-1/2	
<del>6</del>	$x_1$	3.500	1	1/2		1/12	
0	$x_5$	4.500		9/2		-3/4	1
Z = 21.000			0	0*	0	1/2	0



$a_{ij}$	MAX	MIN
SUP.	-	+
INF.	+	-

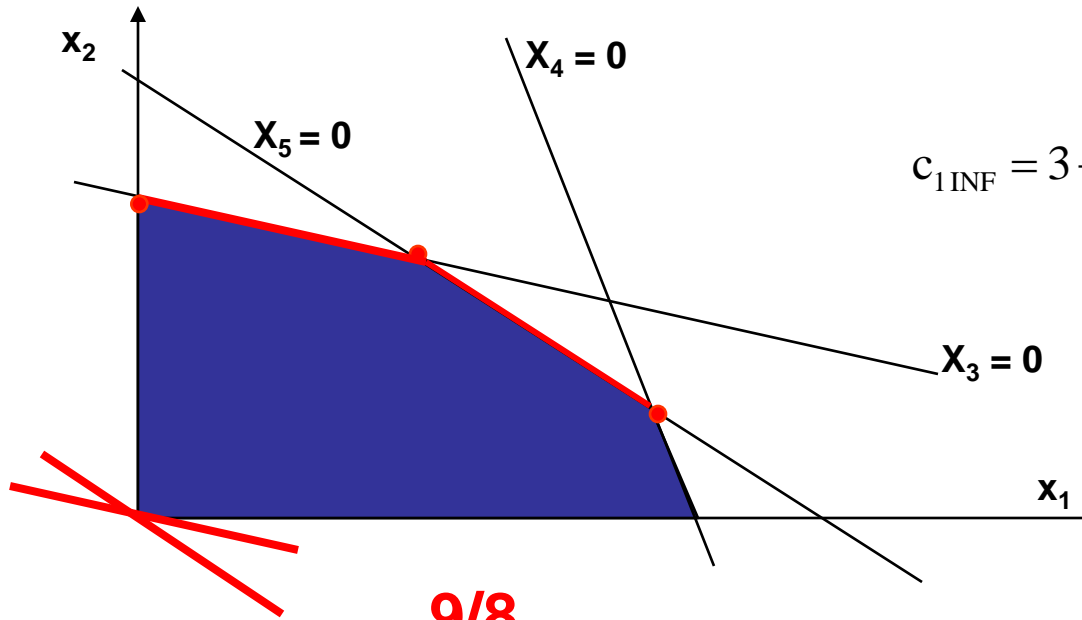


		$c_j$	<del>3</del> 4	3	0	0	0
$c_k$	$x_k$	B	$A_1$	$A_2$	$A_3$	$A_4$	$A_5$
0	$x_3$	14.000			1	5/3	-26/9
<del>3</del> 4	$x_1$	3.000	1			1/6	-1/9
3	$x_2$	1.000		1		-1/6	2/9
Z = 15.000			0	0	0	1/6	2/9
<b>Z = 12.000</b>			<b>0</b>	<b>0</b>	<b>0</b>	<b>0*</b>	<b>1/3</b>



		$c_j$	<del>3</del> 4	3	0	0	0
$c_k$	$x_k$	<b>B</b>	<b>A<sub>1</sub></b>	<b>A<sub>2</sub></b>	<b>A<sub>3</sub></b>	<b>A<sub>4</sub></b>	<b>A<sub>5</sub></b>
← 0	$x_3$	14.000			1	5/3	-26/9
<del>3</del> 4	$x_1$	3.000	1			1/6	-1/9
3	$x_2$	1.000		1		-1/6	2/9
Z = 15.000			0	0	0	1/6	2/9
Z = 12.000			0	0	0	0*	1/3

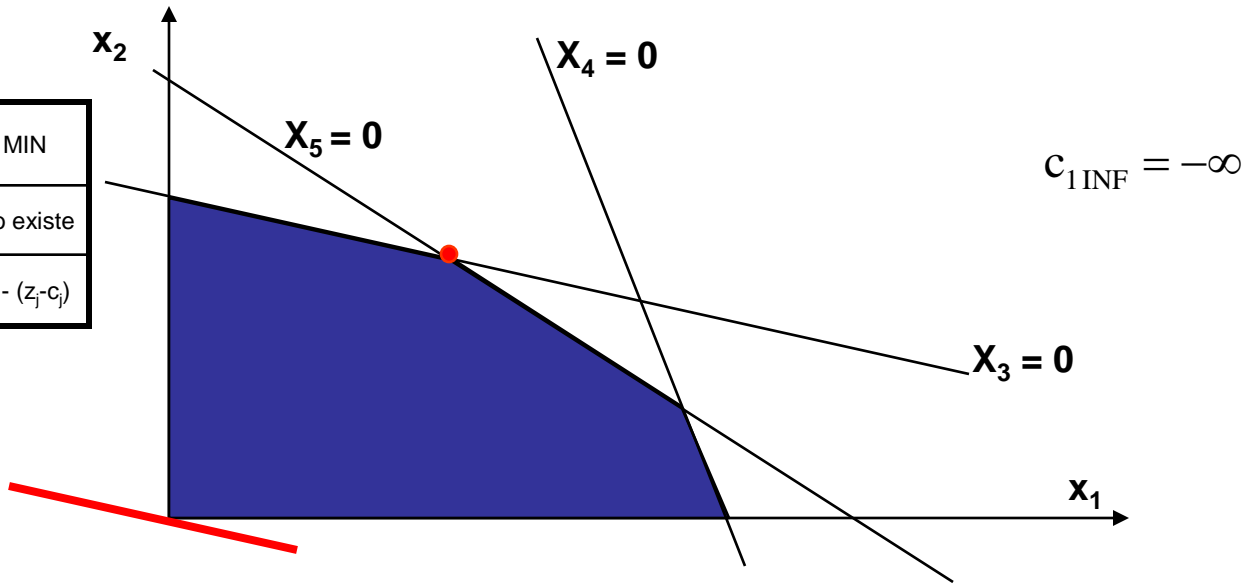
$a_{ij}$	MAX	MIN
SUP.	-	+
INF.	+	-



$$c_{1INF} = 3 - \frac{1/3}{8/45} = 9/8$$

			$c_j$	<del>3</del>	3	0	0	0
$c_k$	$x_k$	<b>B</b>	<b>A<sub>1</sub></b>	<b>A<sub>2</sub></b>	<b>A<sub>3</sub></b>	<b>A<sub>4</sub></b>	<b>A<sub>5</sub></b>	
0	$x_4$	8.400			3/5	1	-26/15	
$9/8$ ← <del>3</del>	$x_1$	2.400	1		-1/10		<u>8/45</u>	
3	$x_2$	1.600		1	1/10		-1/15	
Z = 12.000			0	0	0*	0	1/3	
Z = 9.000			0	0	15/80	0	0*	

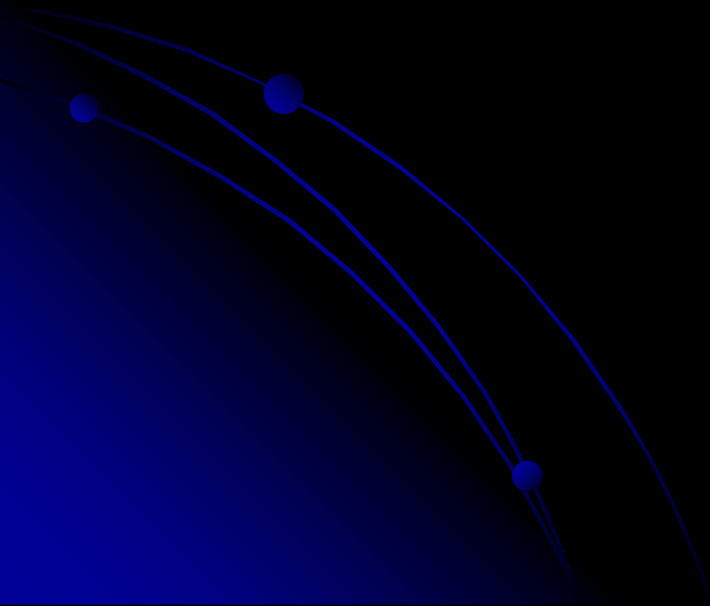
$c_j$ LIM	MAX	MIN
SUP.	$c_j + (z_j - c_j)$	No existe
INF.	No existe	$c_j - (z_j - c_j)$

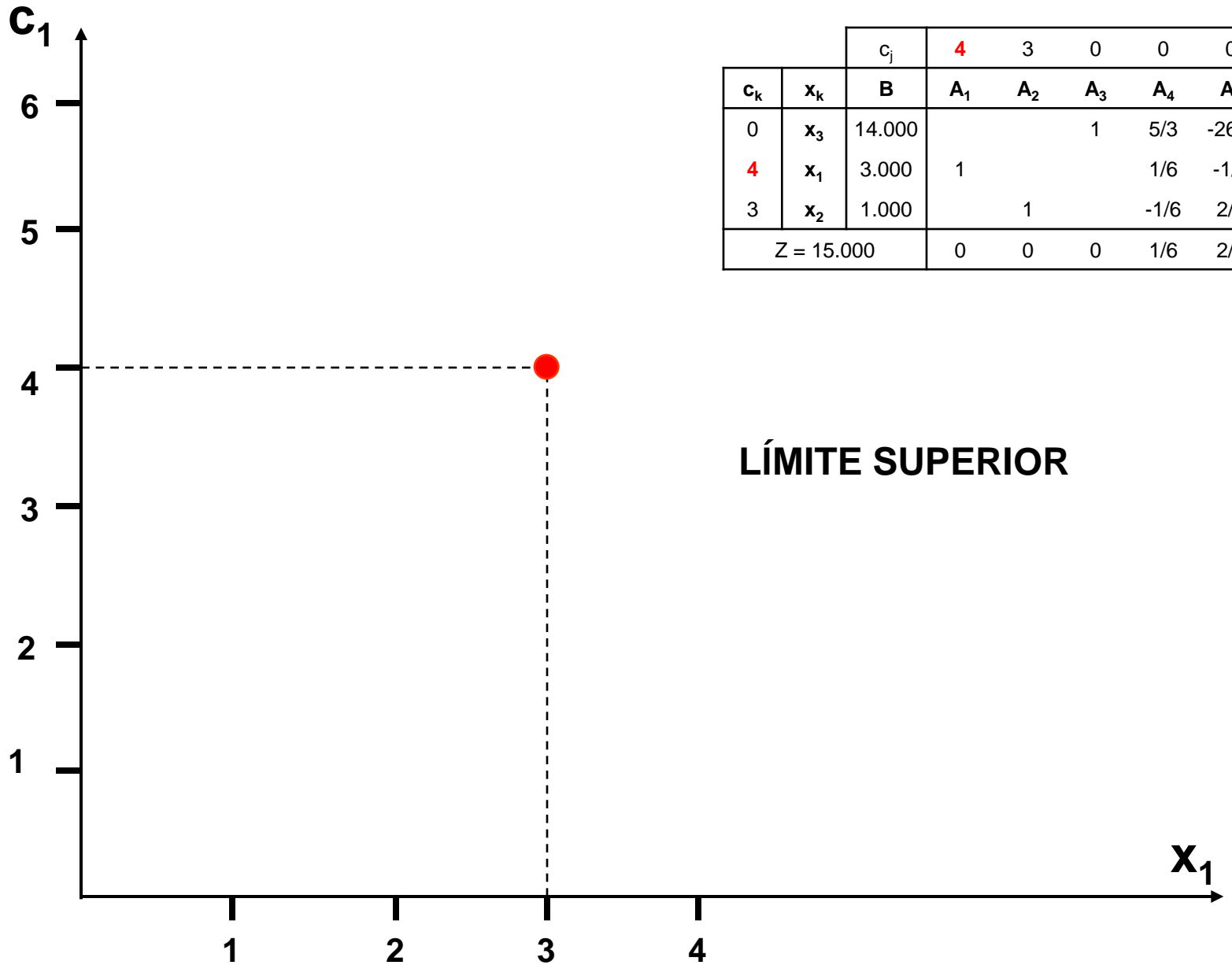


		$c_j$	9/8	3	0	0	0
$C_k$	$x_k$	<b>B</b>	<b>A<sub>1</sub></b>	<b>A<sub>2</sub></b>	<b>A<sub>3</sub></b>	<b>A<sub>4</sub></b>	<b>A<sub>5</sub></b>
0	$x_4$	24.000	78/8		-3/10	1	
0	$x_5$	9.000	45/8		-9/16		1
3	$x_2$	3.000	3/8	1	1/16		
<b>Z = 9.000</b>			<b>0*</b>	<b>0</b>	<b>3/16</b>	<b>0</b>	<b>0</b>

# CURVA DE OFERTA

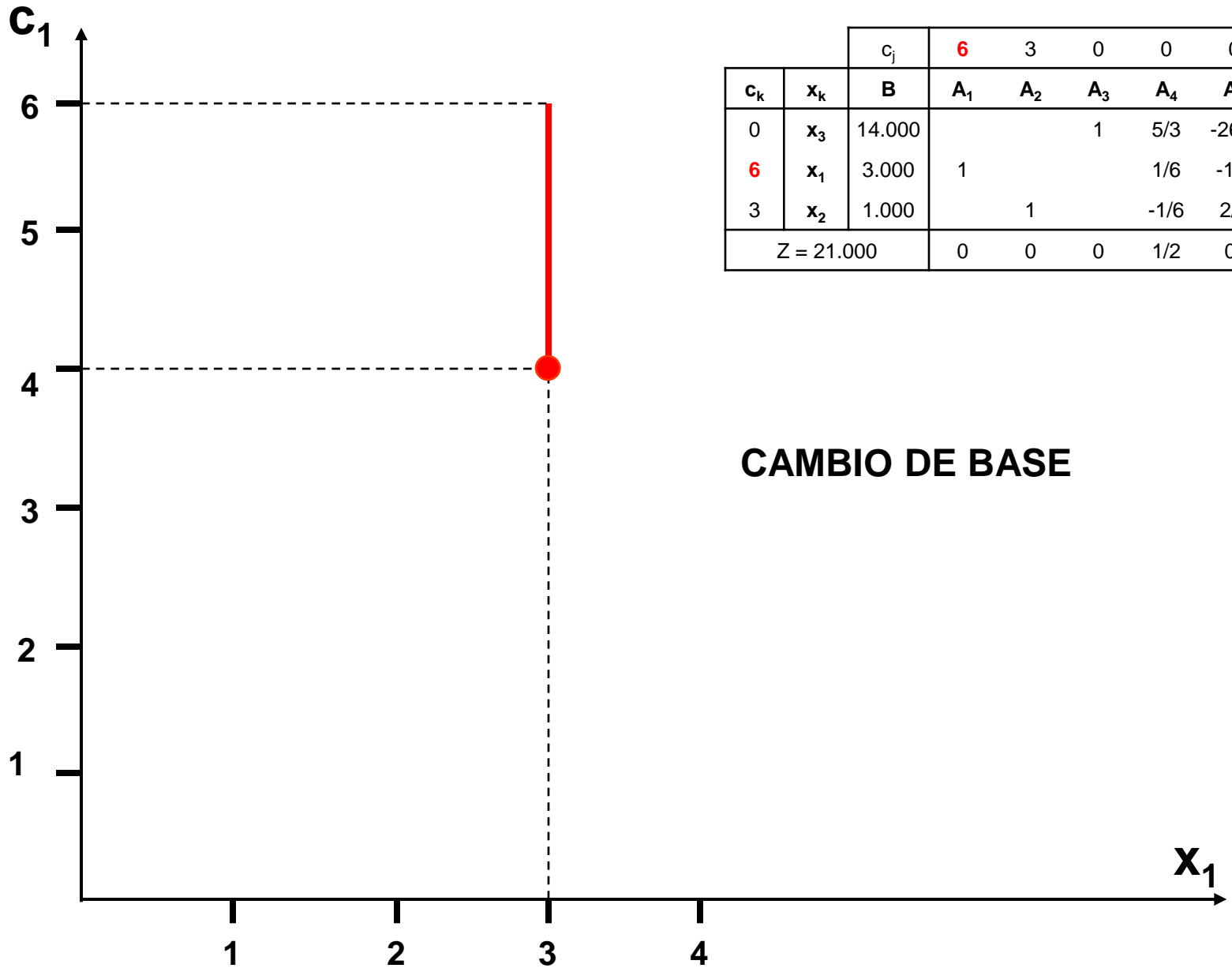
“A”





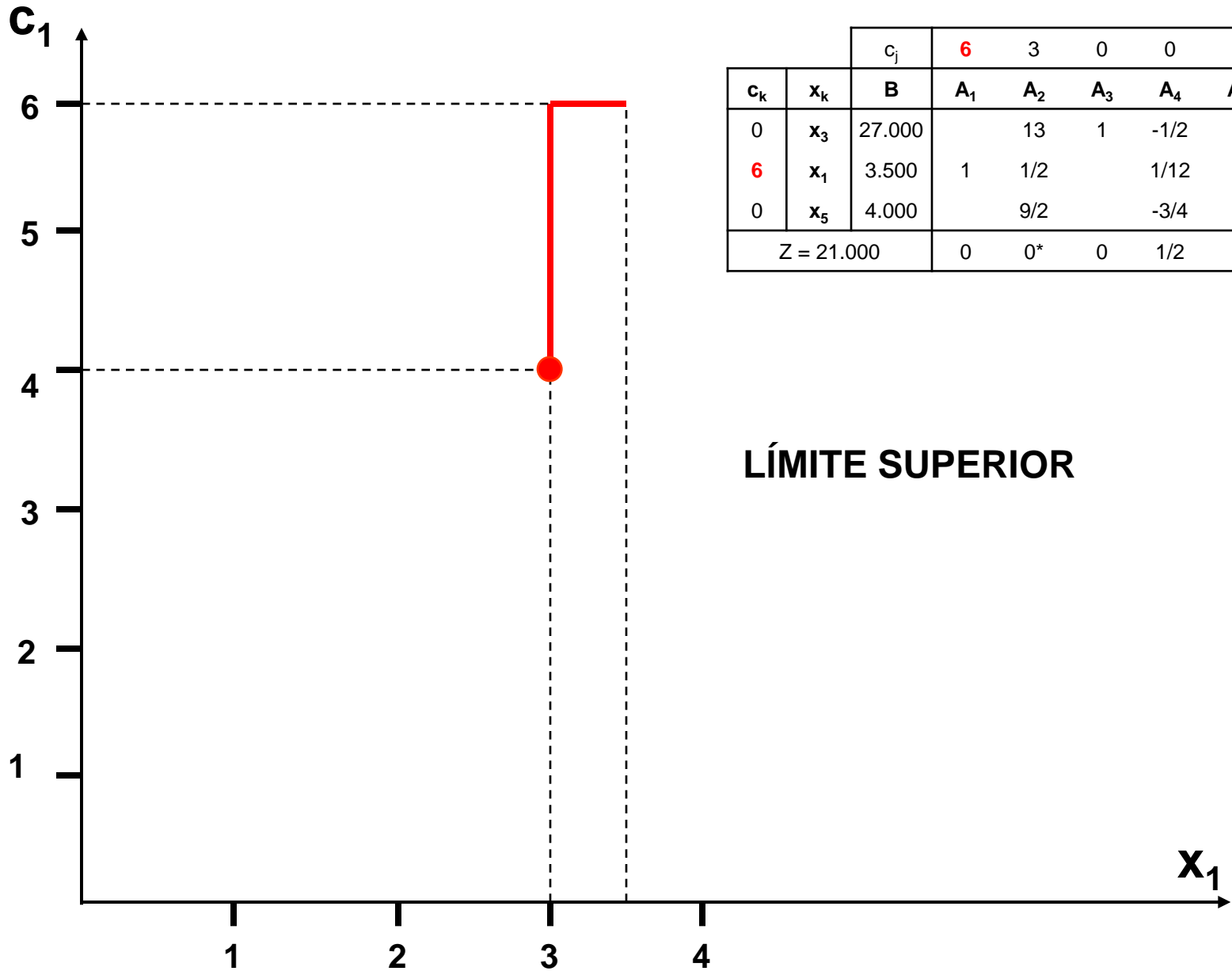
		$c_j$	<b>4</b>	3	0	0	0
$c_k$	$x_k$	<b>B</b>	<b>A<sub>1</sub></b>	<b>A<sub>2</sub></b>	<b>A<sub>3</sub></b>	<b>A<sub>4</sub></b>	<b>A<sub>5</sub></b>
0	$x_3$	14.000			1	5/3	-26/9
<b>4</b>	$x_1$	3.000	1			1/6	-1/9
3	$x_2$	1.000		1		-1/6	2/9
Z = 15.000			0	0	0	1/6	2/9

**LÍMITE SUPERIOR**



		$c_j$	<b>6</b>	3	0	0	0
$c_k$	$x_k$	<b>B</b>	<b>A<sub>1</sub></b>	<b>A<sub>2</sub></b>	<b>A<sub>3</sub></b>	<b>A<sub>4</sub></b>	<b>A<sub>5</sub></b>
0	$x_3$	14.000			1	5/3	-26/9
<b>6</b>	$x_1$	3.000	1			1/6	-1/9
3	$x_2$	1.000		1		-1/6	2/9
Z = 21.000			0	0	0	1/2	0*

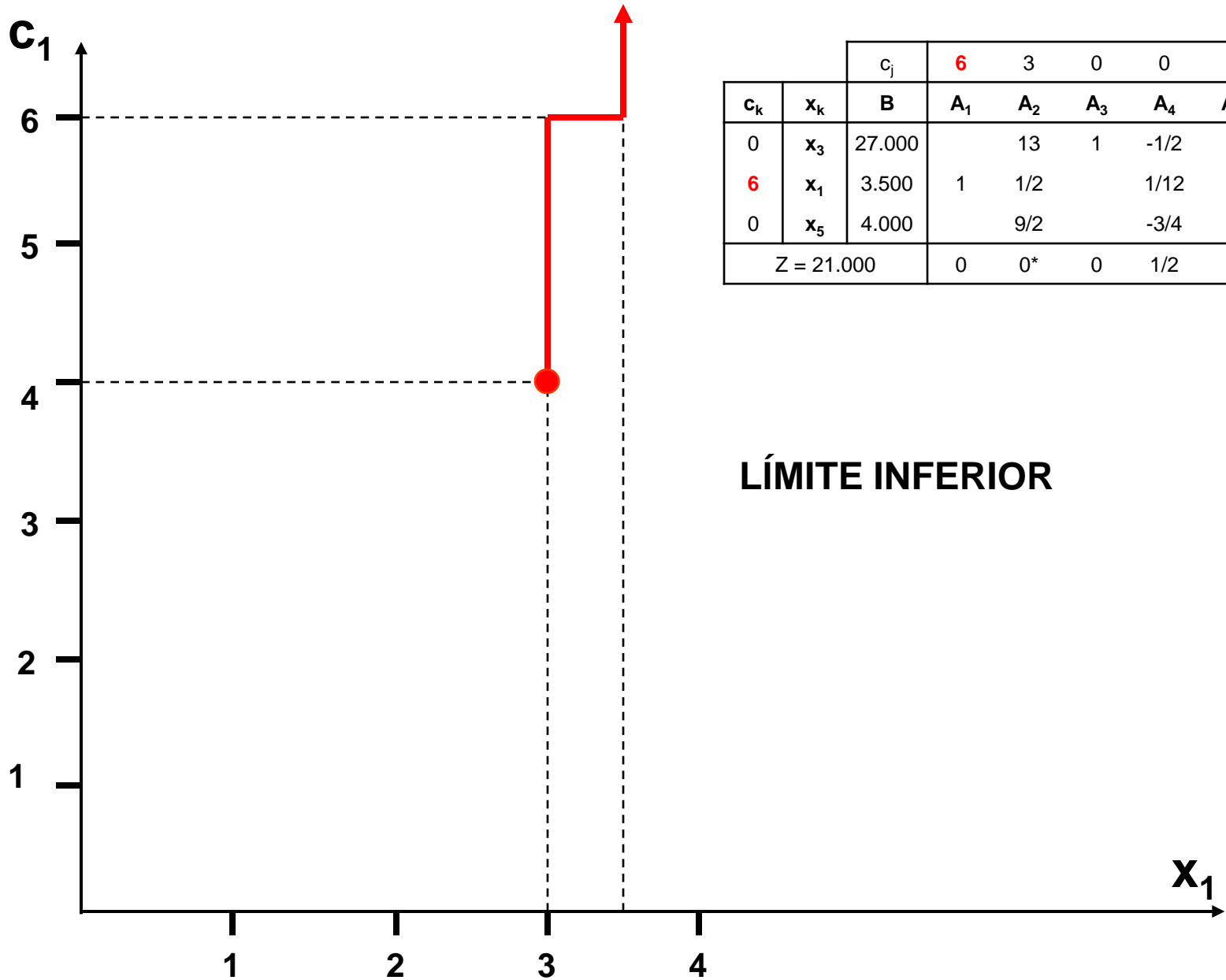
**CAMBIO DE BASE**



		$c_j$	<b>6</b>	3	0	0	0
$c_k$	$x_k$	<b>B</b>	<b>A<sub>1</sub></b>	<b>A<sub>2</sub></b>	<b>A<sub>3</sub></b>	<b>A<sub>4</sub></b>	<b>A<sub>5</sub></b>
0	$x_3$	27.000		13	1	-1/2	
<b>6</b>	$x_1$	3.500	1	1/2		1/12	1
0	$x_5$	4.000		9/2		-3/4	
Z = 21.000			0	0*	0	1/2	0

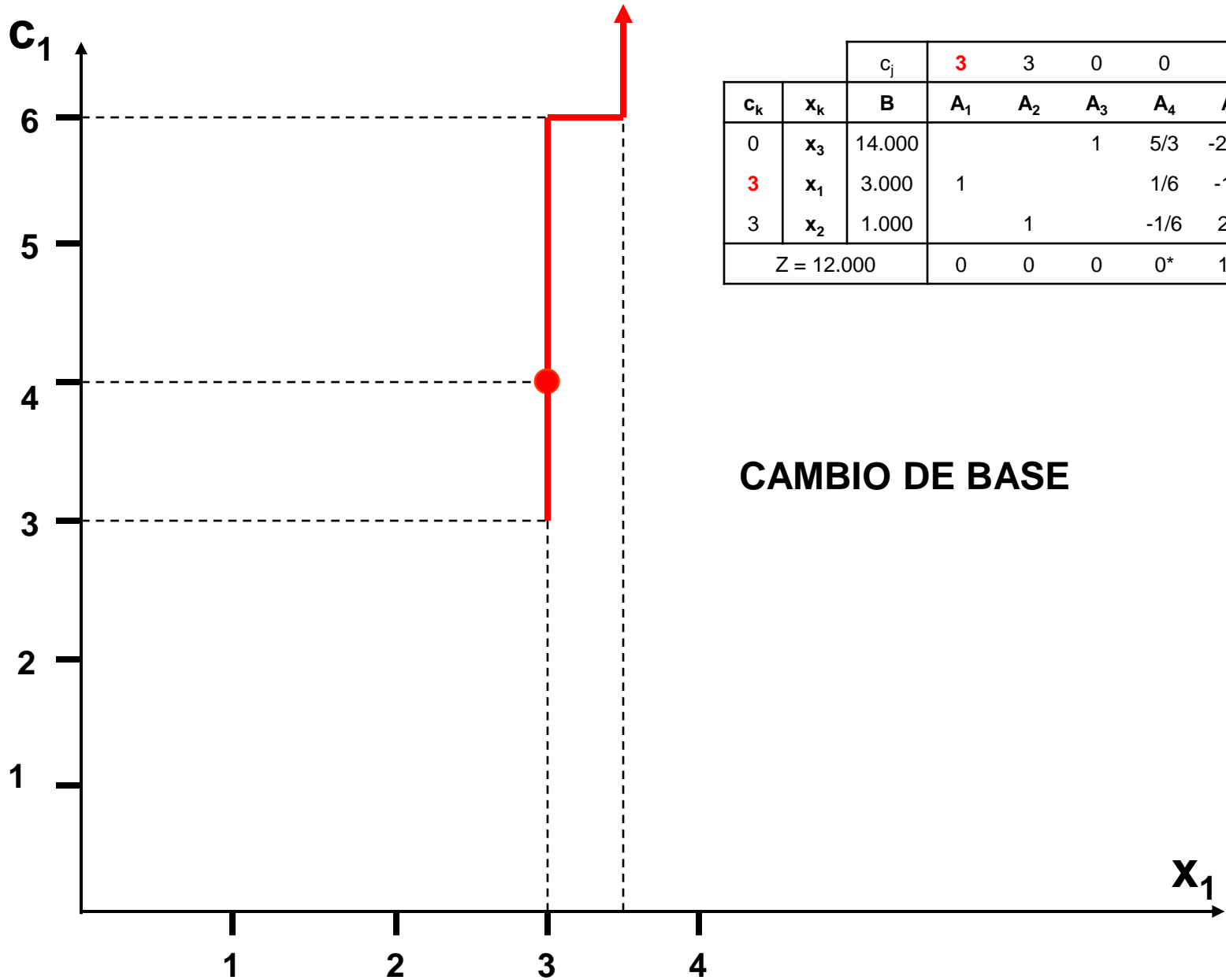
**LÍMITE SUPERIOR**





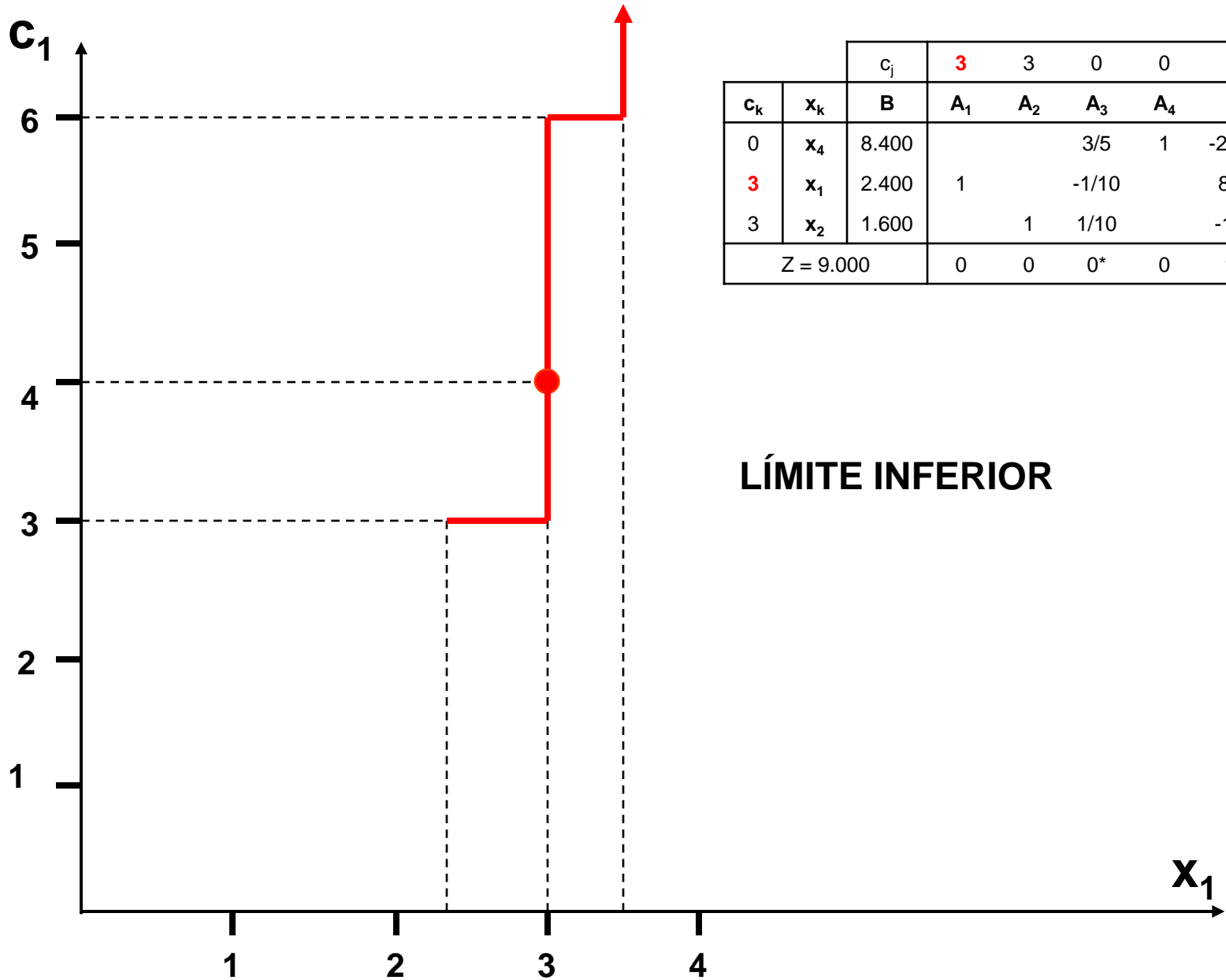
		$c_j$	<b>6</b>	3	0	0	0
$c_k$	$x_k$	<b>B</b>	<b>A<sub>1</sub></b>	<b>A<sub>2</sub></b>	<b>A<sub>3</sub></b>	<b>A<sub>4</sub></b>	<b>A<sub>5</sub></b>
0	$x_3$	27.000		13	1	-1/2	
<b>6</b>	$x_1$	3.500	1	1/2		1/12	1
0	$x_5$	4.000		9/2		-3/4	
Z = 21.000			0	0*	0	1/2	0

**LÍMITE INFERIOR**



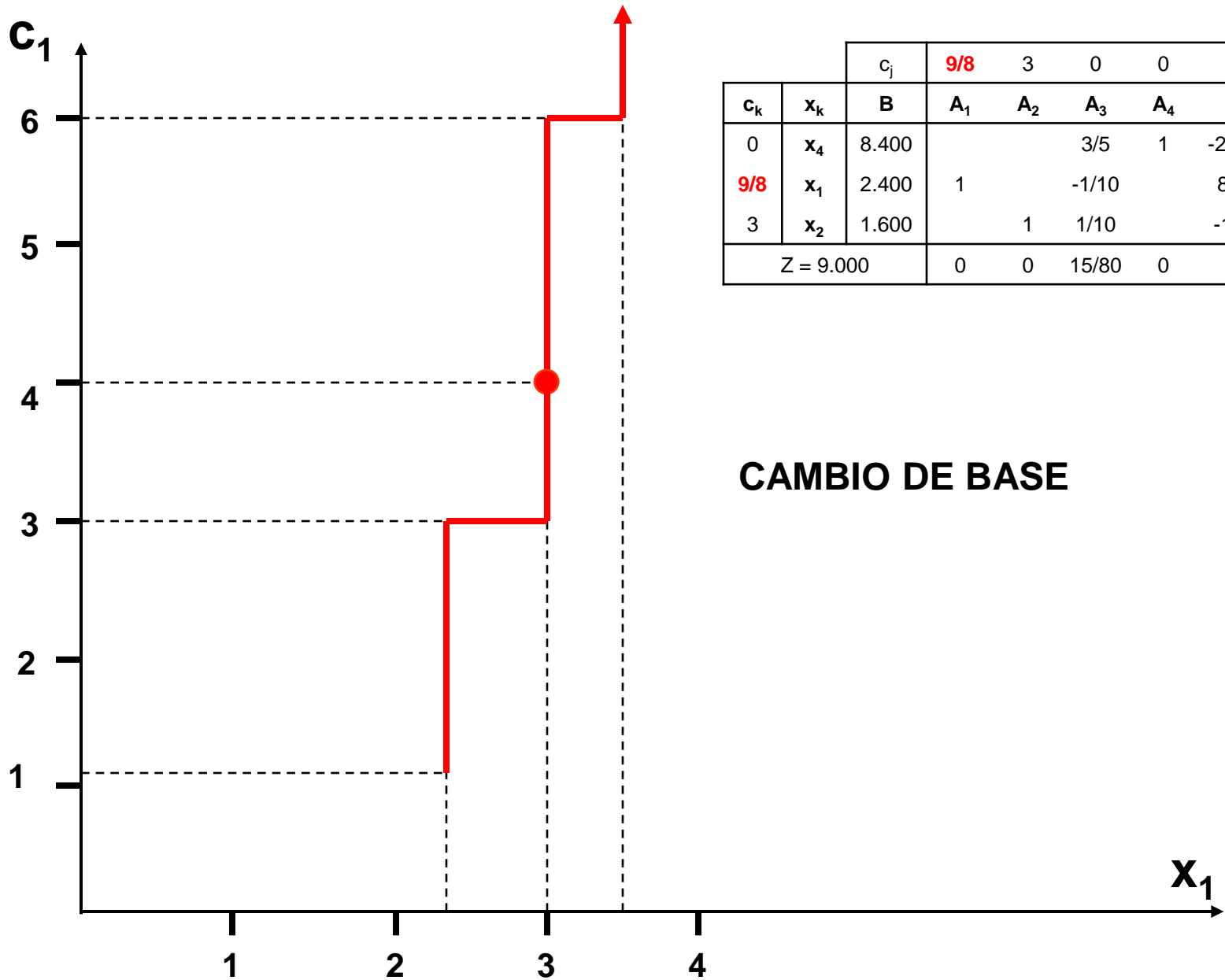
		$c_j$	<b>3</b>	3	0	0	0
$c_k$	$x_k$	<b>B</b>	<b>A<sub>1</sub></b>	<b>A<sub>2</sub></b>	<b>A<sub>3</sub></b>	<b>A<sub>4</sub></b>	<b>A<sub>5</sub></b>
0	$x_3$	14.000			1	5/3	-26/9
<b>3</b>	$x_1$	3.000	1			1/6	-1/9
3	$x_2$	1.000		1		-1/6	2/9
Z = 12.000			0	0	0	0*	1/3

**CAMBIO DE BASE**



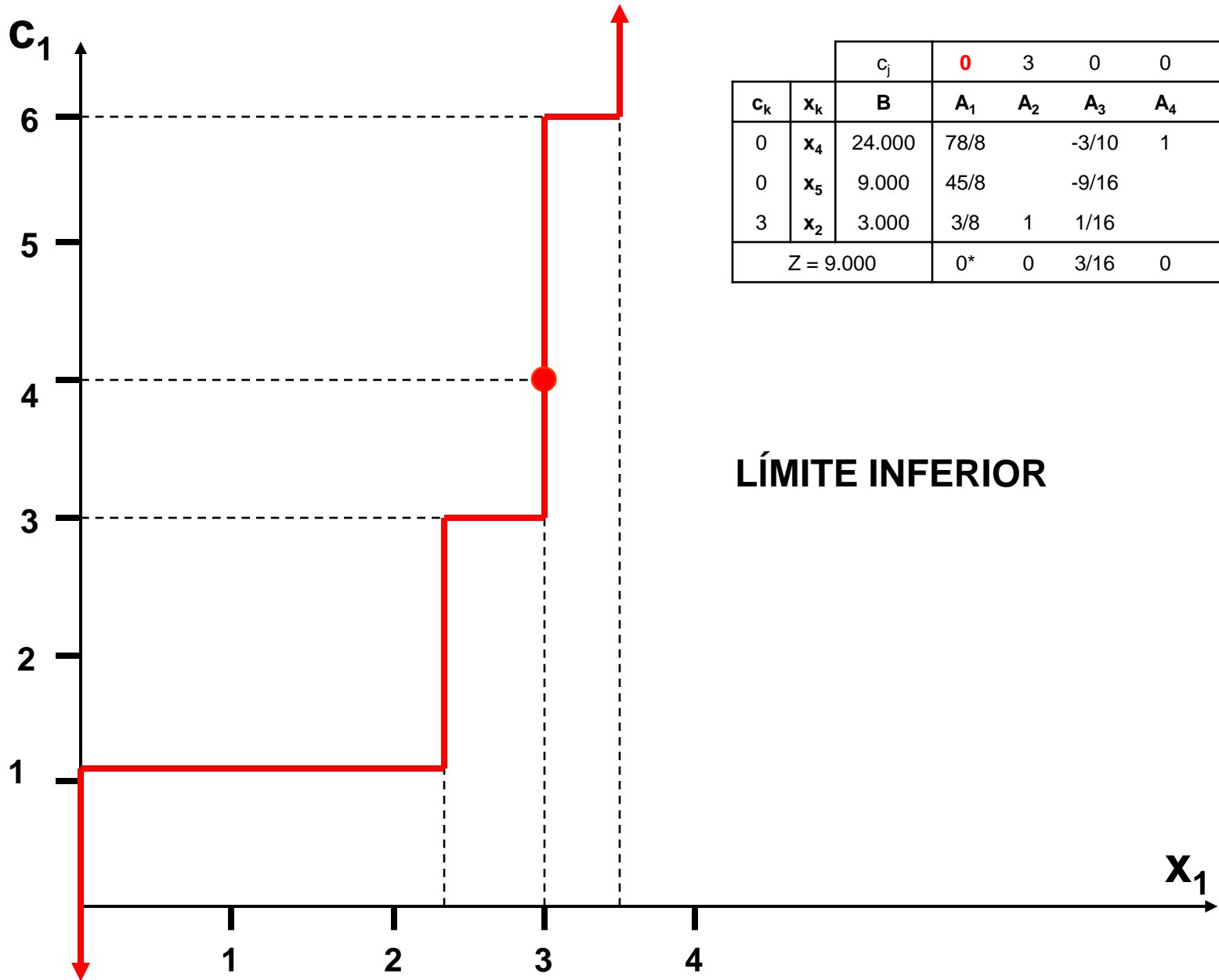
		$c_j$	<b>3</b>	3	0	0	0
$c_k$	$x_k$	<b>B</b>	<b>A<sub>1</sub></b>	<b>A<sub>2</sub></b>	<b>A<sub>3</sub></b>	<b>A<sub>4</sub></b>	<b>A<sub>5</sub></b>
0	$x_4$	8.400			3/5	1	-26/15
<b>3</b>	$x_1$	2.400	1		-1/10		8/45
3	$x_2$	1.600		1	1/10		-1/15
Z = 9.000			0	0	0*	0	1/3

**LÍMITE INFERIOR**



		$c_j$	9/8	3	0	0	0
$c_k$	$x_k$	B	$A_1$	$A_2$	$A_3$	$A_4$	$A_5$
0	$x_4$	8.400			3/5	1	-26/15
9/8	$x_1$	2.400	1		-1/10		8/45
3	$x_2$	1.600		1	1/10		-1/15
Z = 9.000			0	0	15/80	0	0*

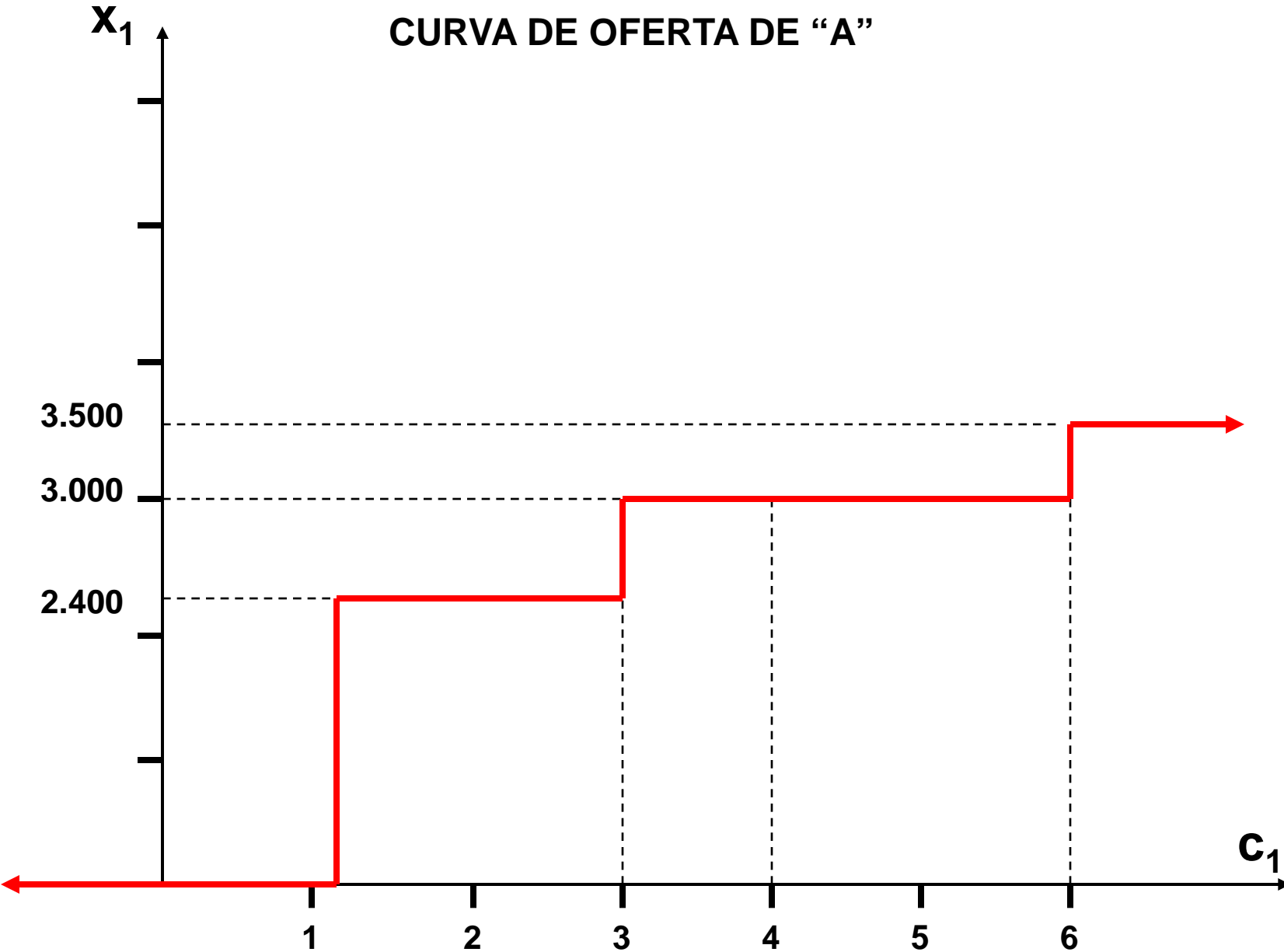
**CAMBIO DE BASE**



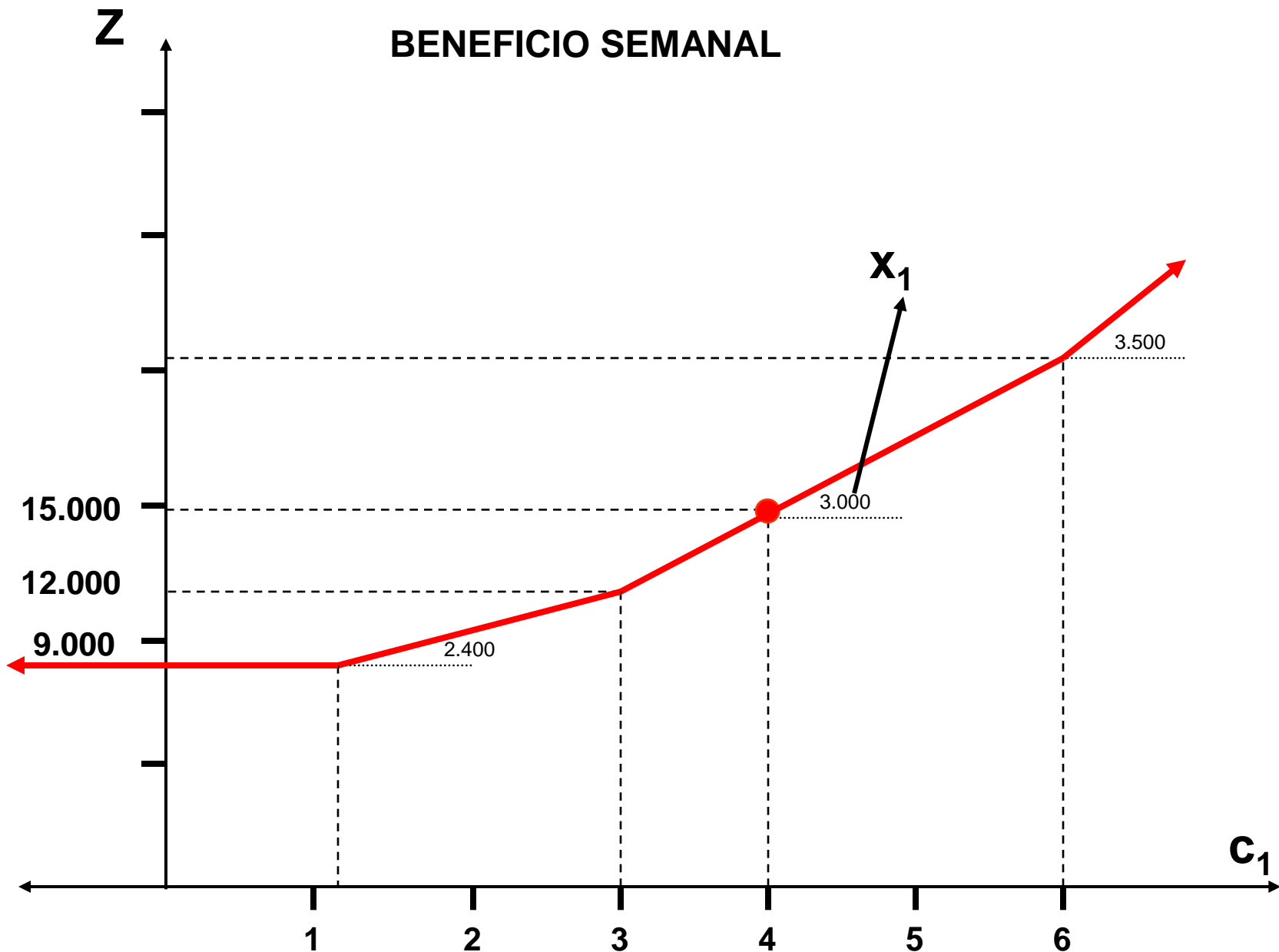
		$c_j$	0	3	0	0	0
$c_k$	$x_k$	<b>B</b>	<b>A<sub>1</sub></b>	<b>A<sub>2</sub></b>	<b>A<sub>3</sub></b>	<b>A<sub>4</sub></b>	<b>A<sub>5</sub></b>
0	$x_4$	24.000	78/8		-3/10	1	
0	$x_5$	9.000	45/8		-9/16		1
3	$x_2$	3.000	3/8	1	1/16		
Z = 9.000			0*	0	3/16	0	0

**LÍMITE INFERIOR**

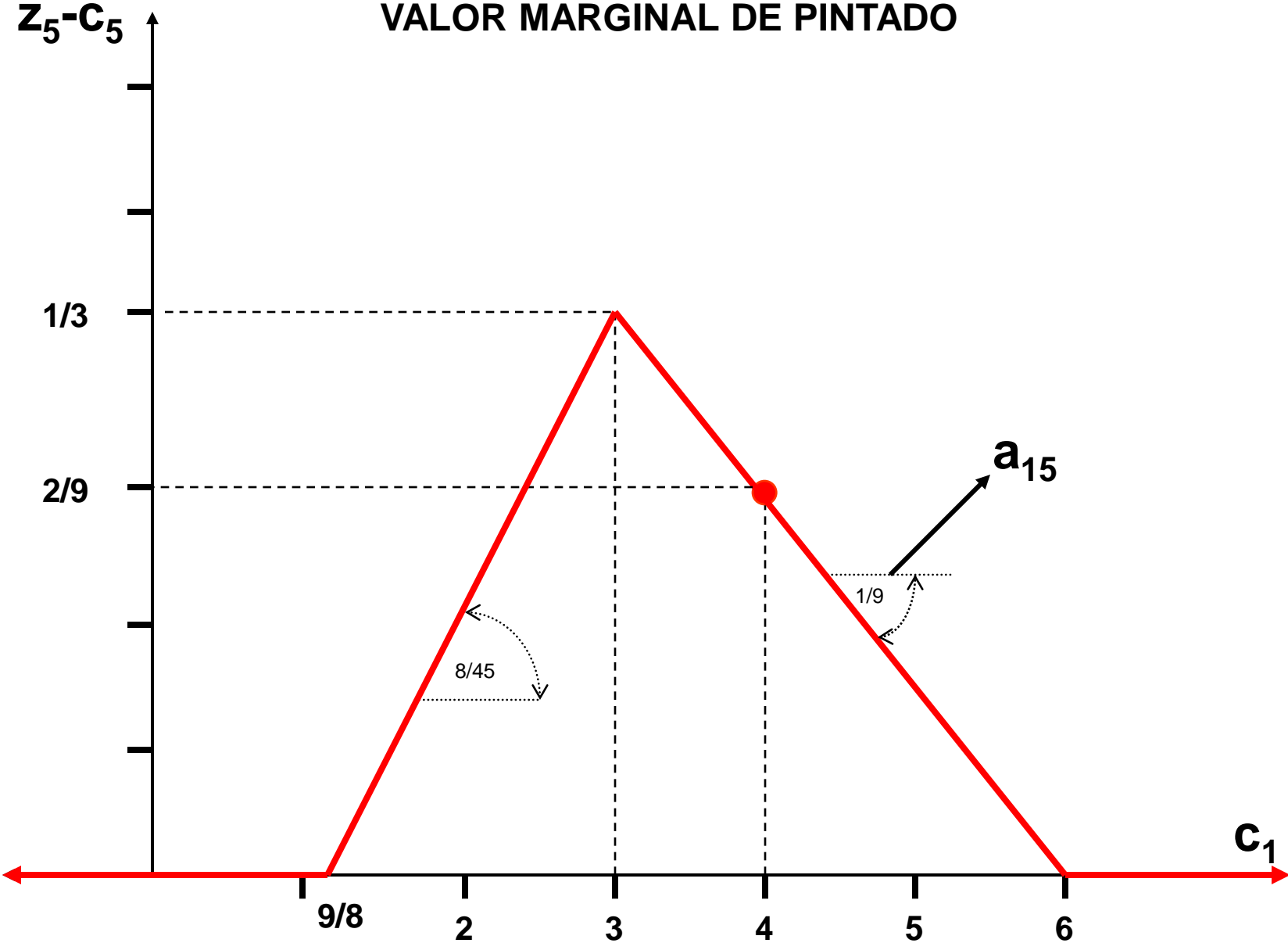
# CURVA DE OFERTA DE "A"



# BENEFICIO SEMANAL

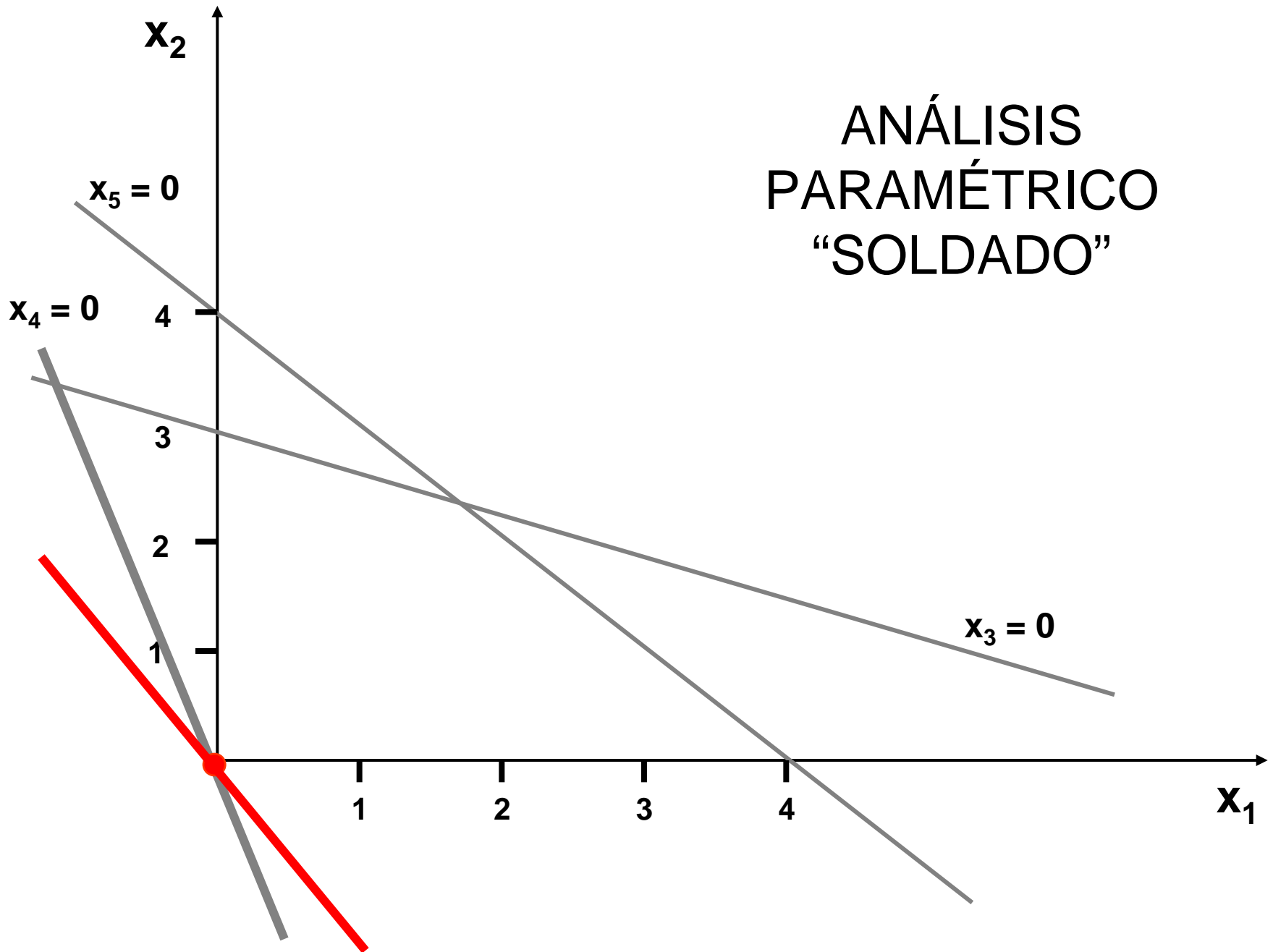


# VALOR MARGINAL DE PINTADO

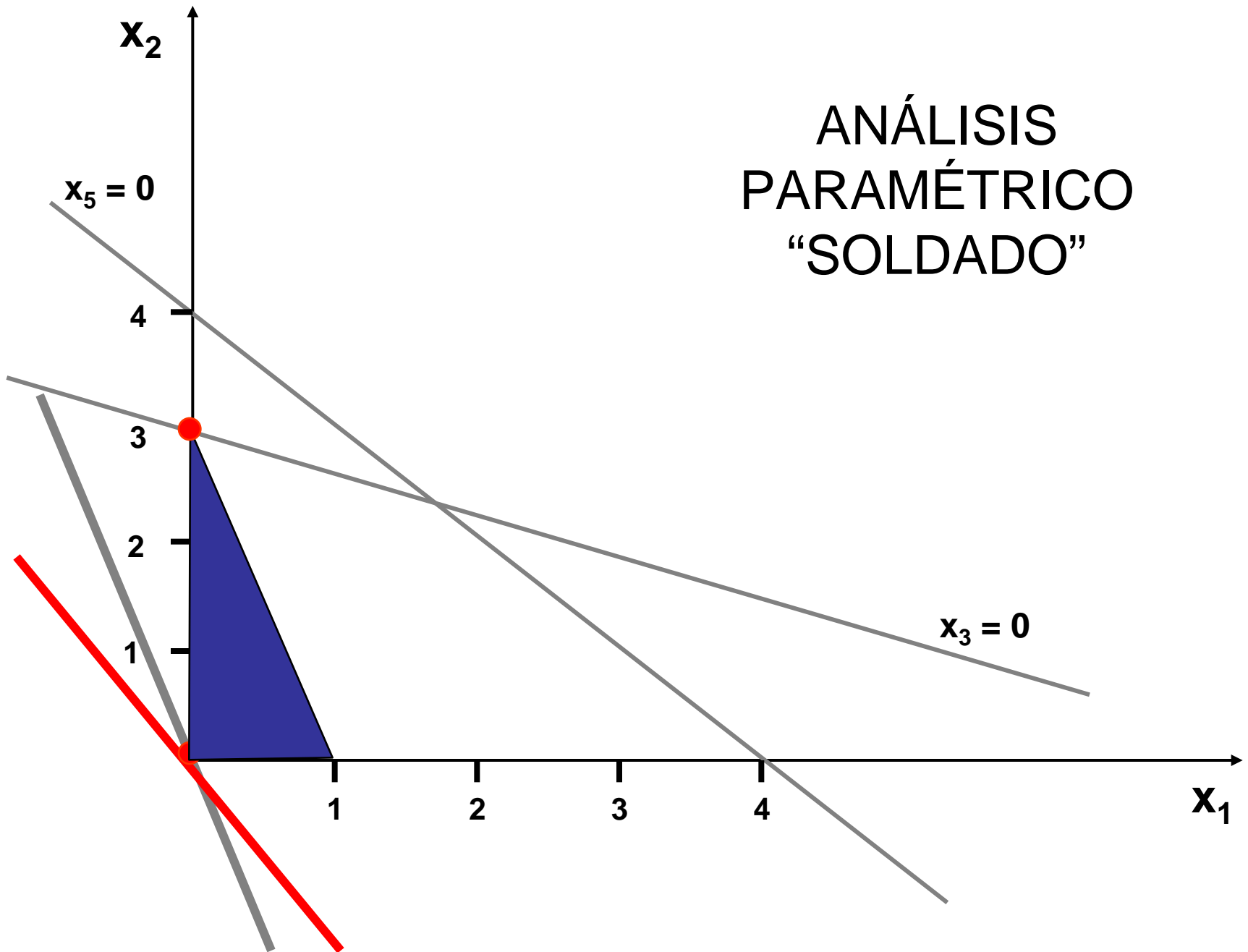




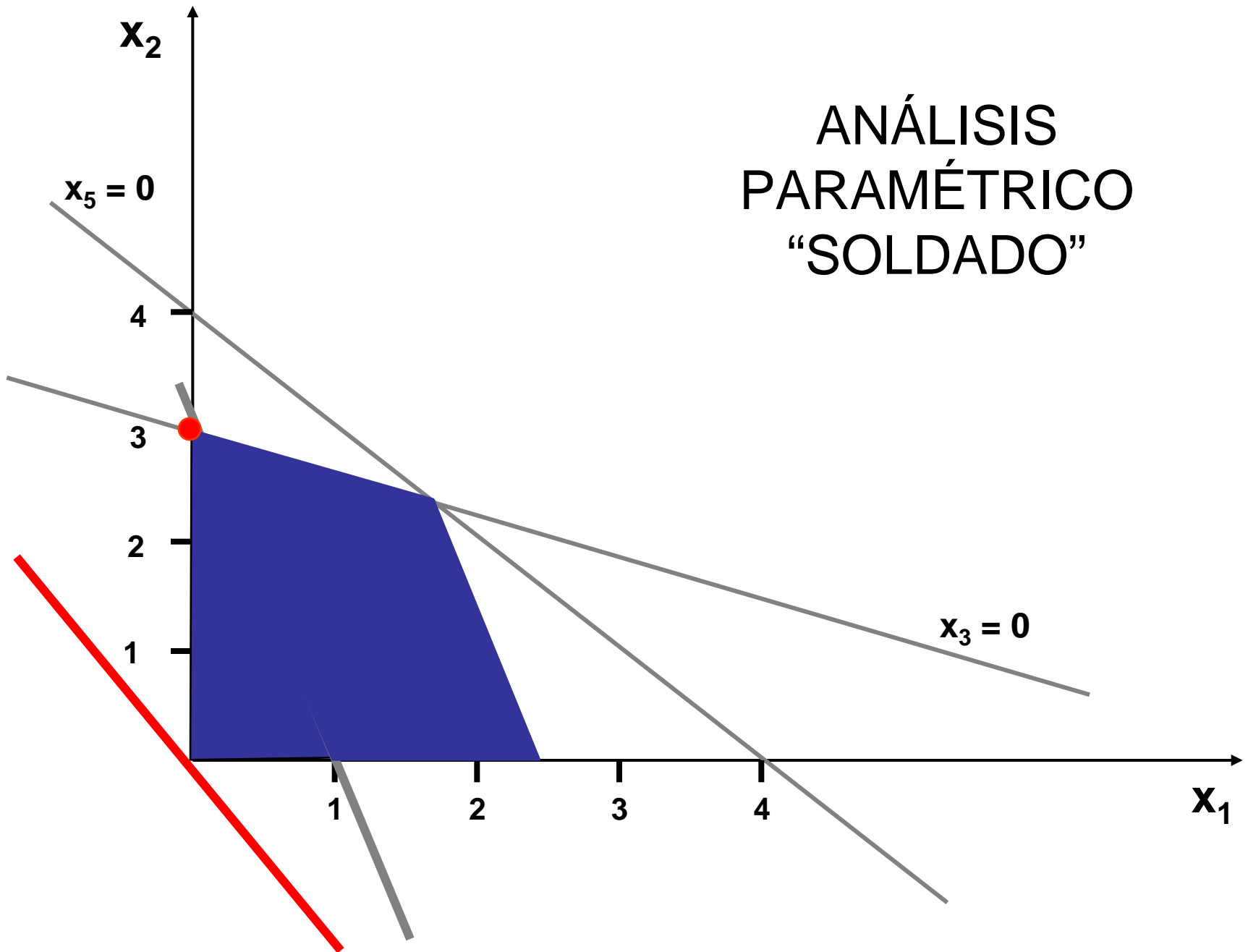
# ANÁLISIS PARAMÉTRICO "SOLDADO"



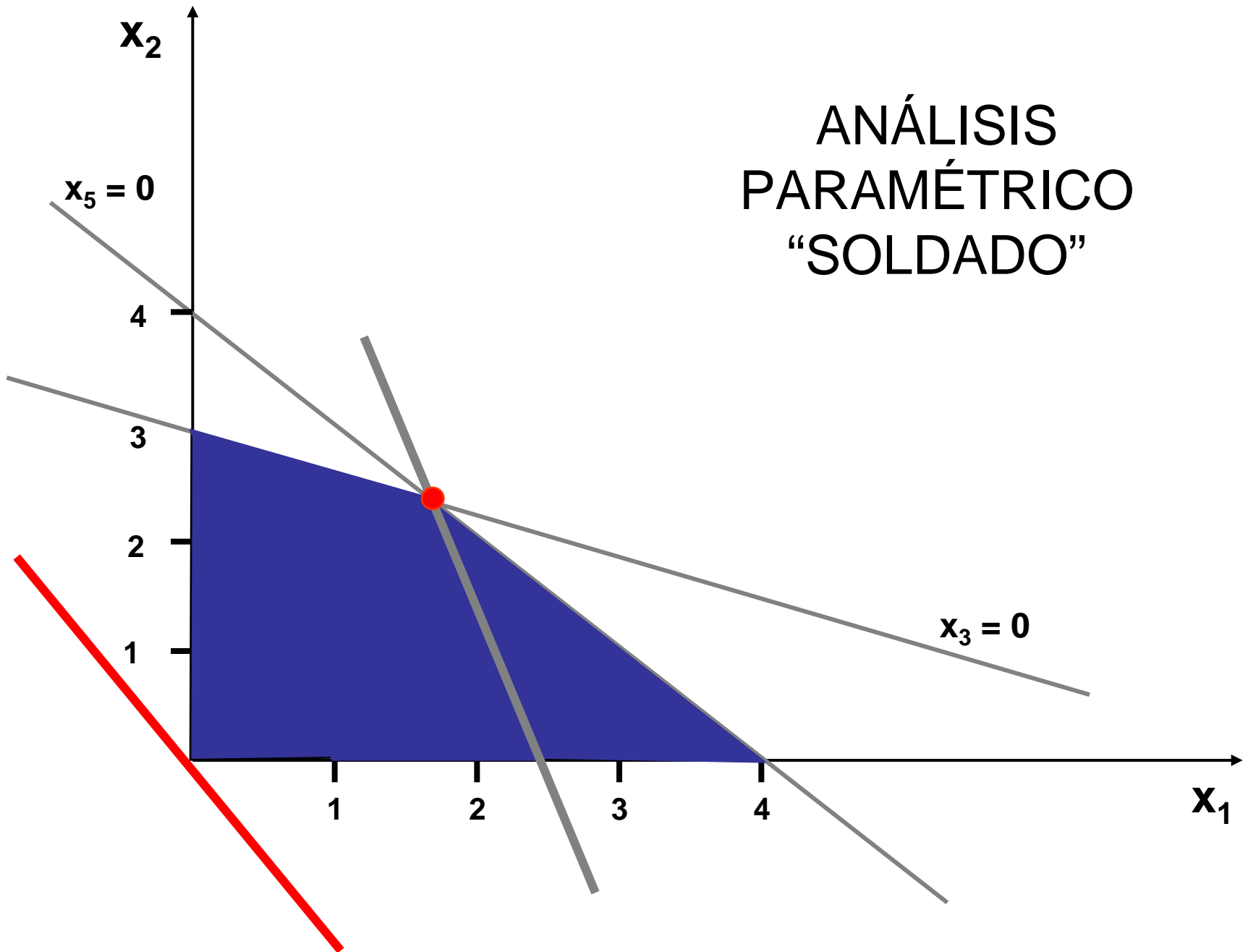
# ANÁLISIS PARAMÉTRICO "SOLDADO"



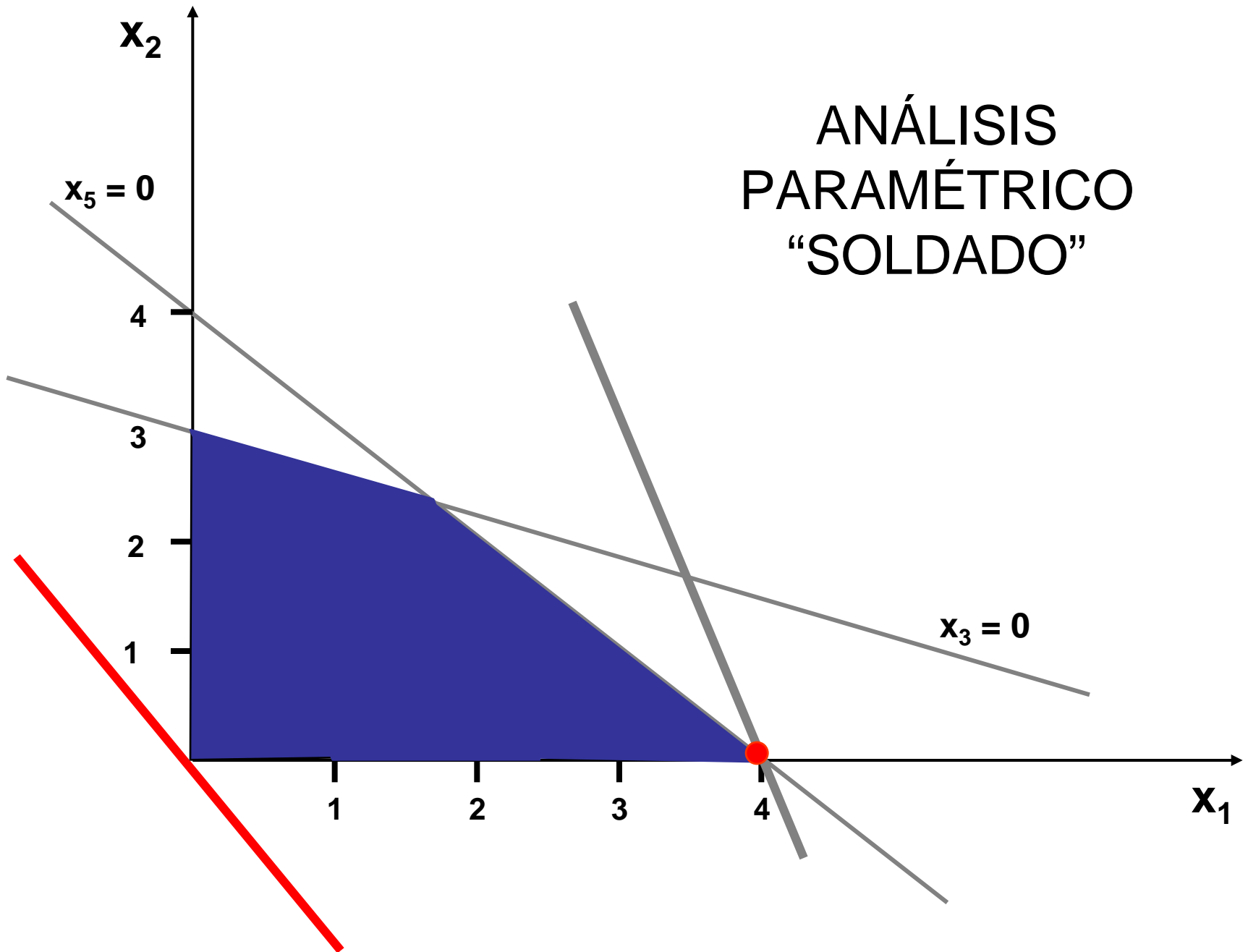
# ANÁLISIS PARAMÉTRICO "SOLDADO"



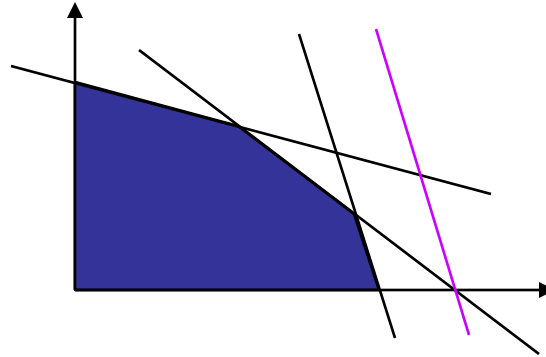
# ANÁLISIS PARAMÉTRICO "SOLDADO"



# ANÁLISIS PARAMÉTRICO "SOLDADO"

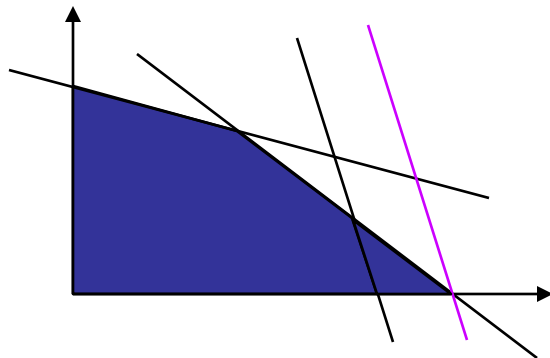


$a_{ij}$	MAX	MIN
SUP.	-	+
INF.	+	-



$$b_{2\text{SUP}} = 42.000 + \frac{1.000}{1/6} = 48.000$$

		$C_j$	<b>48.000</b>	<b>42.000</b>	<b>36.000</b>	<b>0</b>	<b>0</b>
$C'_k$	$y_k$	$B'$	$A'_1$	$A'_2$	$A'_3$	$A'_4$	$A'_5$
<b>42.000</b>	$y_2$	<b>1/6</b>	<b>-5/3</b>	<b>1</b>		<b>-1/6</b>	<b>1/6</b>
<b>36.000</b>	$y_3$	<b>2/9</b>	<b>26/9</b>		<b>1</b>	<b>1/9</b>	<b>-2/9</b>
<b>Z = 15.000</b>			<b>-14.000</b>	<b>0</b>	<b>0</b>	<b>-3.000</b>	<b>-1.000</b>



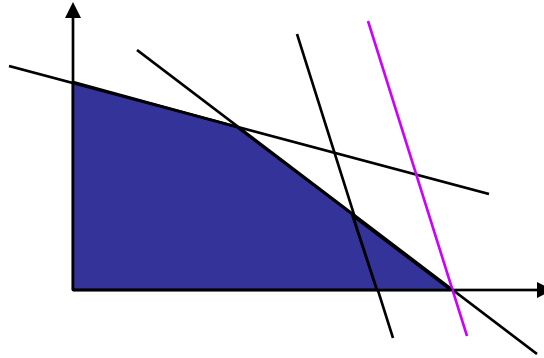
48.000

		$C_j$	48.000	<del>42.000</del>	36.000	0	0
$C'_k$	$y_k$	$B'$	$A'_1$	$A'_2$	$A'_3$	$A'_4$	$A'_5$
<del>42.000</del>	$y_2$	1/6	-5/3	1		-1/6	1/6
36.000	$y_3$	2/9	26/9		1	1/9	-2/9
Z = 15.000			-14.000	0	0	-3.000	-1.000
Z = 16.000			-24.000	0	0	-4.000	0*

48.000



$c_j$ LIM	MAX	MIN
SUP.	$c_j + (z_j - c_j)$	No existe
INF.	No existe	$c_j - (z_j - c_j)$

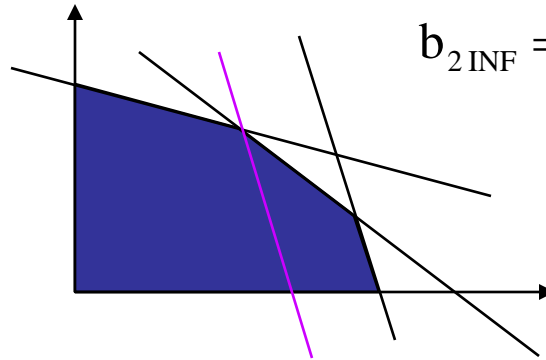


$$b_{2\text{SUP}} = \infty$$

		$c_j$	48.000	48.000	36.000	0	0
$c'_k$	$y_k$	$B'$	$A'_1$	$A'_2$	$A'_3$	$A'_4$	$A'_5$
0	$y_5$	1	-10	6		-1	1
36.000	$y_3$	4/9	2/3	4/3	1	-1/9	
<b>Z = 16.000</b>			<b>-14.000</b>	<b>0*</b>	<b>0</b>	<b>-4.000</b>	<b>0</b>

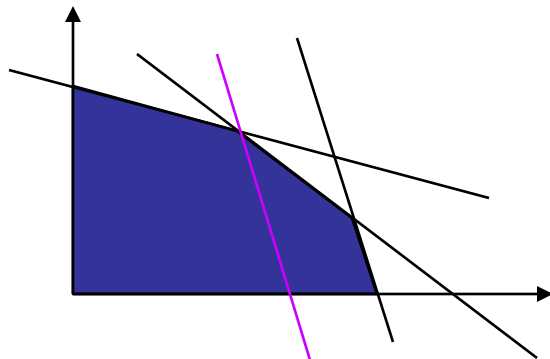


$a_{ij}$	MAX	MIN
SUP.	-	+
INF.	+	-



$$b_{2\text{INF}} = 42.000 - \left[ \frac{14.000}{5/3}; \frac{3.000}{1/6} \right]_{\text{MIN}} = 33.600$$

		$C_j$	<b>48.000</b>	<b>42.000</b>	<b>36.000</b>	<b>0</b>	<b>0</b>
$C'_k$	$y_k$	<b>B'</b>	<b><math>A'_1</math></b>	<b><math>A'_2</math></b>	<b><math>A'_3</math></b>	<b><math>A'_4</math></b>	<b><math>A'_5</math></b>
<b>42.000</b>	$y_2$	<b>1/6</b>	<b>-5/3</b>	<b>1</b>		<b>-1/6</b>	<b>1/6</b>
<b>36.000</b>	$y_3$	<b>2/9</b>	<b>26/9</b>		<b>1</b>	<b>1/9</b>	<b>-2/9</b>
<b>Z = 15.000</b>			<b>-14.000</b>	<b>0</b>	<b>0</b>	<b>-3.000</b>	<b>-1.000</b>



**33.600**

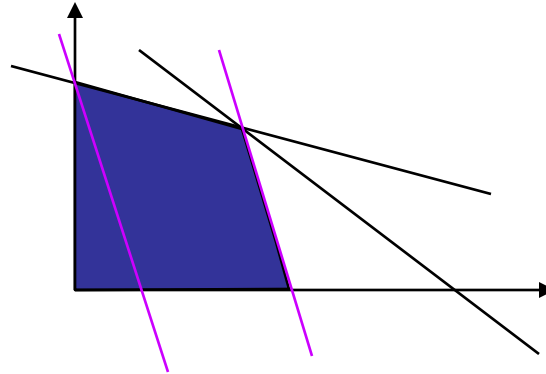
		$C_j$	48.000	<del>42.000</del>	36.000	0	0
$C'_k$	$y_k$	$B'$	$A'_1$	$A'_2$	$A'_3$	$A'_4$	$A'_5$
<del>42.000</del>	$y_2$	1/6	-5/3	1		-1/6	1/6
<b>36.000</b>	$y_3$	2/9	<b>26/9</b>		1	1/9	-2/9
<b>Z = 15.000</b>			-14.000	0	0	-3.000	-1.000
<b>Z = 13.600</b>			<b>0*</b>	0	0	-1.600	-2.400



**33.600**

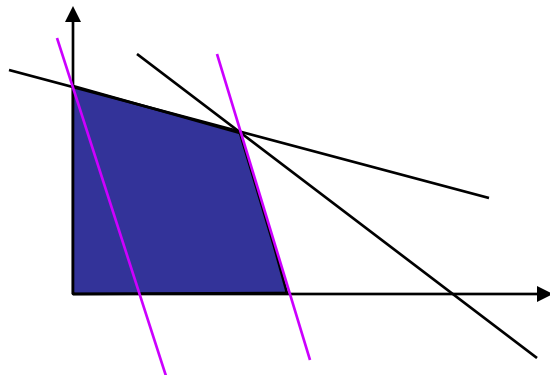


$a_{ij}$	MAX	MIN
SUP.	-	+
INF.	+	-



$$b_{2\text{INF}} = 33.600 - \frac{1.600}{4/39} = 18.000$$

		$C_j$	48.000	33.600	36.000	0	0
$C'_k$	$y_k$	$B'$	$A'_1$	$A'_2$	$A'_3$	$A'_4$	$A'_5$
33.600	$y_2$	23/78		1	15/26	-4/39	1/26
48.000	$y_1$	1/13	1		9/26	11/26	-1/13
<b>Z = 13.600</b>			<b>0</b>	<b>0</b>	<b>0*</b>	<b>-1.600</b>	<b>-2.400</b>



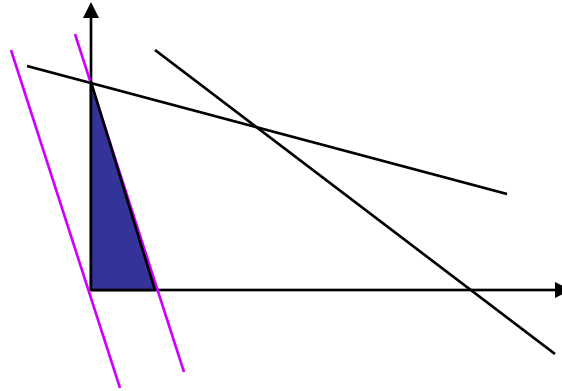
18.000

		$C_j$	48.000	<del>33.600</del>	36.000	0	0
$C'_k$	$y_k$	$B'$	$A'_1$	$A'_2$	$A'_3$	$A'_4$	$A'_5$
<del>33.600</del>	$y_2$	23/78		1	15/26	-4/39	1/26
48.000	$y_1$	1/13	1		9/26	11/26	-1/13
Z = 13.600			0	0	0*	-1.600	-2.400
Z = 9.000			0	0	-9.000	0*	-3.000

18.000

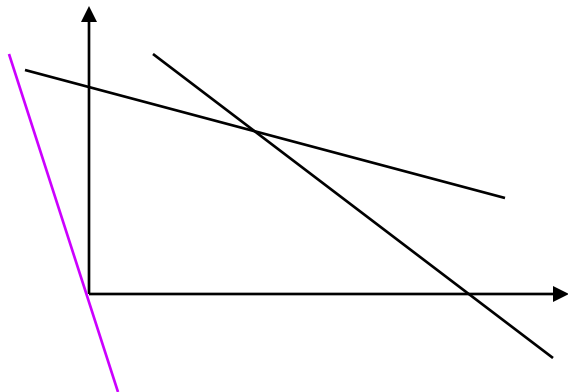


$a_{ij}$	MAX	MIN
SUP.	-	+
INF.	+	-



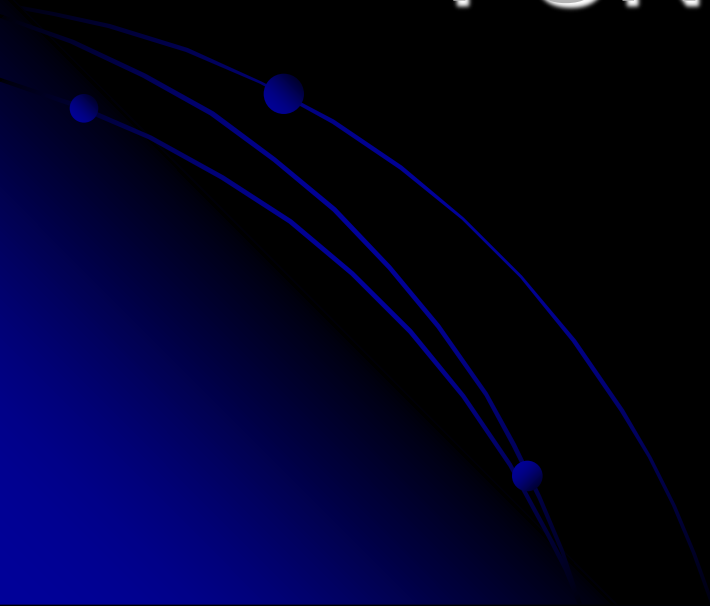
$$b_{2\text{INF}} = 18.000 - \frac{3.000}{1/6} = 0$$

			$C_j$	48.000	<del>18.000</del>	36.000	0	0
	$C'_k$	$y_k$	$B'$	$A'_1$	$A'_2$	$A'_3$	$A'_4$	$A'_5$
<b>0</b>	<del>18.000</del>	$y_2$	1/2	8/3	1	3/2		-1/6
	0	$y_4$	2	26		9	1	-2
	<b>Z = 9.000</b>			0*	0	-9.000	0	-3.000
	<b>Z = 0</b>			-48.000	0	-36.000	0	0*

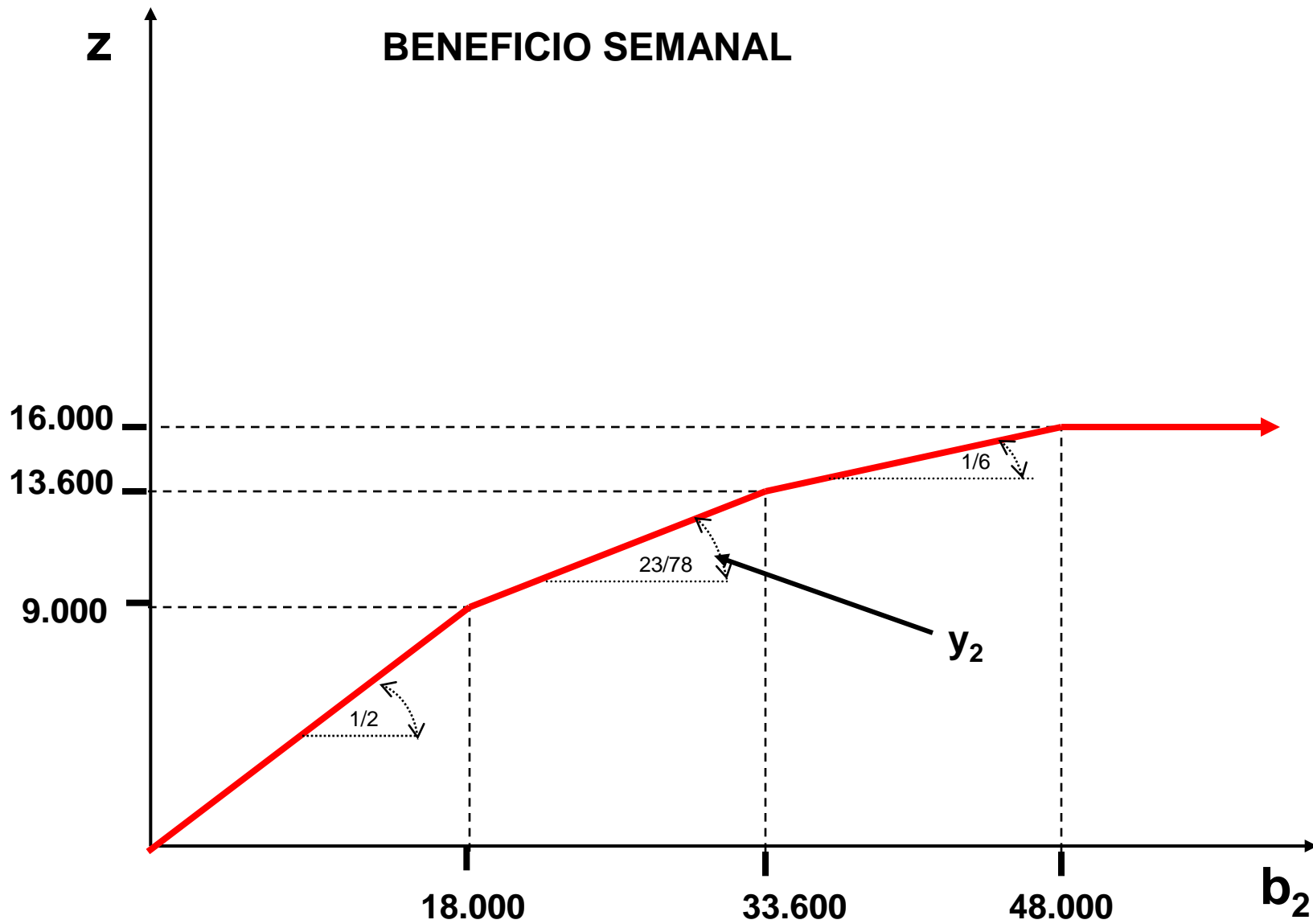


		$C_j$	<b>48.000</b>	<b>0</b>	<b>36.000</b>	<b>0</b>	<b>0</b>
$C'_k$	$y_k$	$B'$	$A'_1$	$A'_2$	$A'_3$	$A'_4$	$A'_5$
<b>0</b>	$y_2$	<b>1/2</b>	<b>8/3</b>	<b>1</b>	<b>3/2</b>		<b>-1/6</b>
<b>0</b>	$y_4$	<b>2</b>	<b>26</b>		<b>9</b>	<b>1</b>	<b>-2</b>
<b>Z = 0</b>			<b>-48.000</b>	<b>0</b>	<b>-36.000</b>	<b>0</b>	<b>0*</b>

# GRÁFICOS DE VARIACIÓN DE PARÁMETROS EN FUNCIÓN DE “ $b_2$ ”

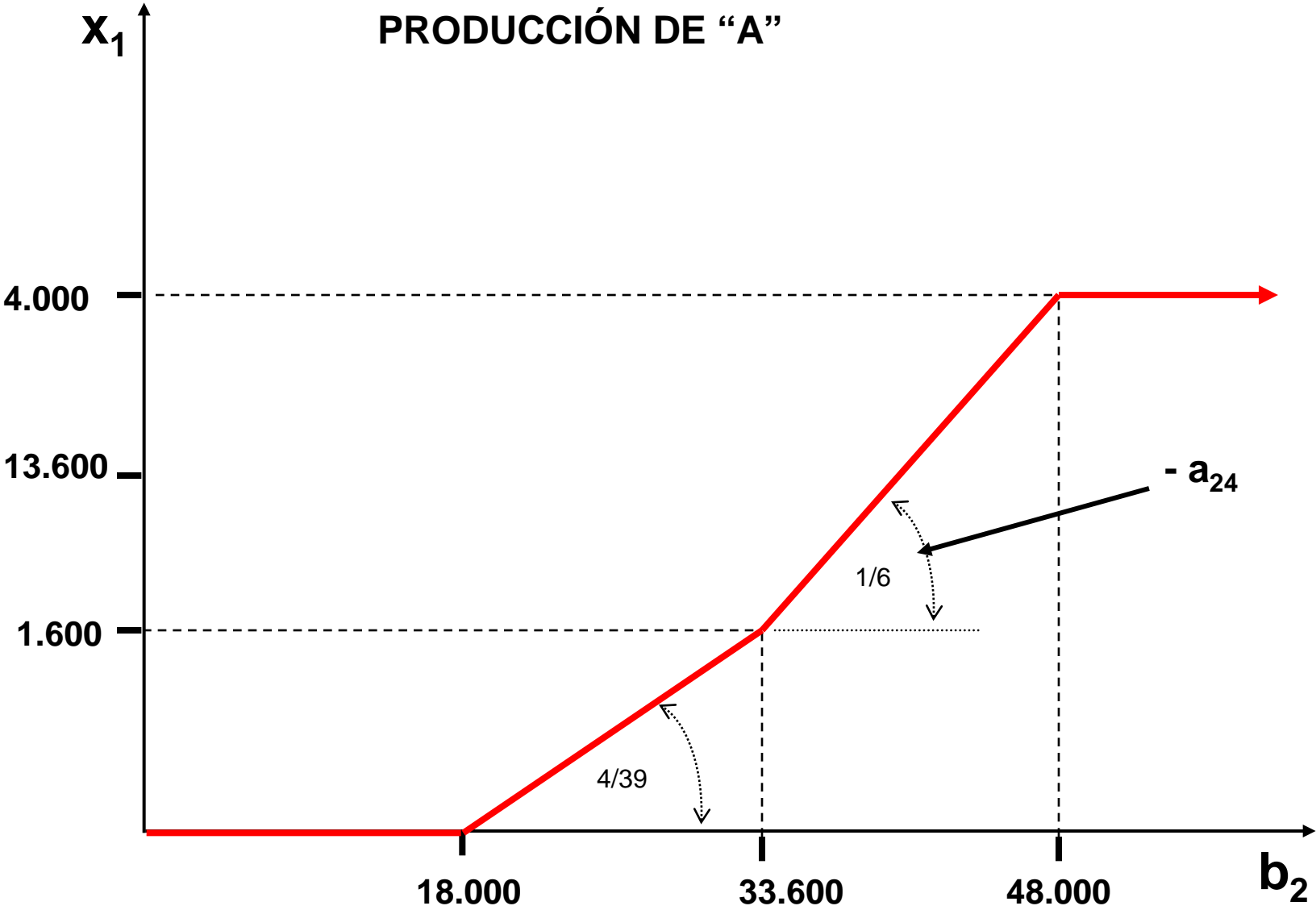


# BENEFICIO SEMANAL

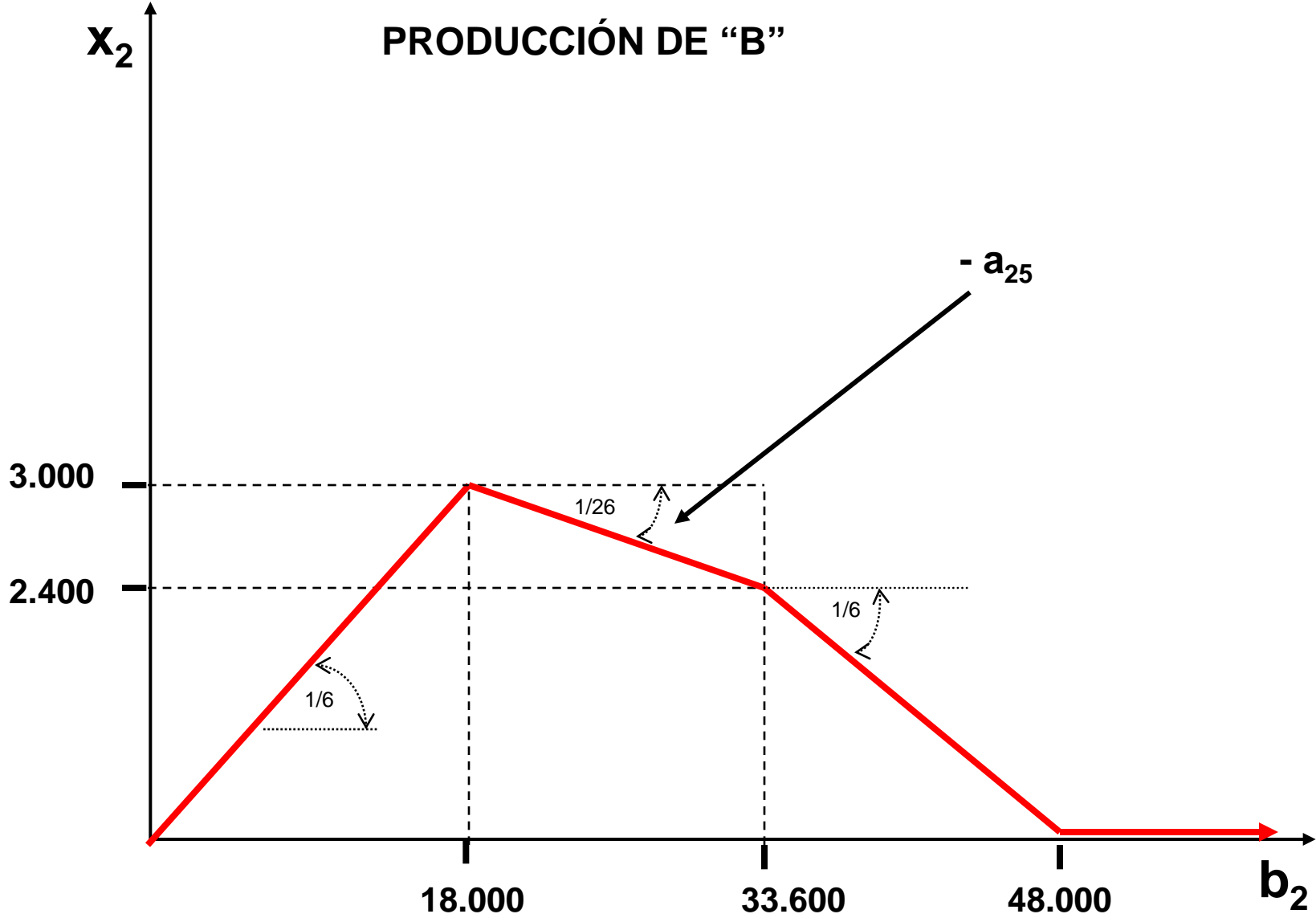




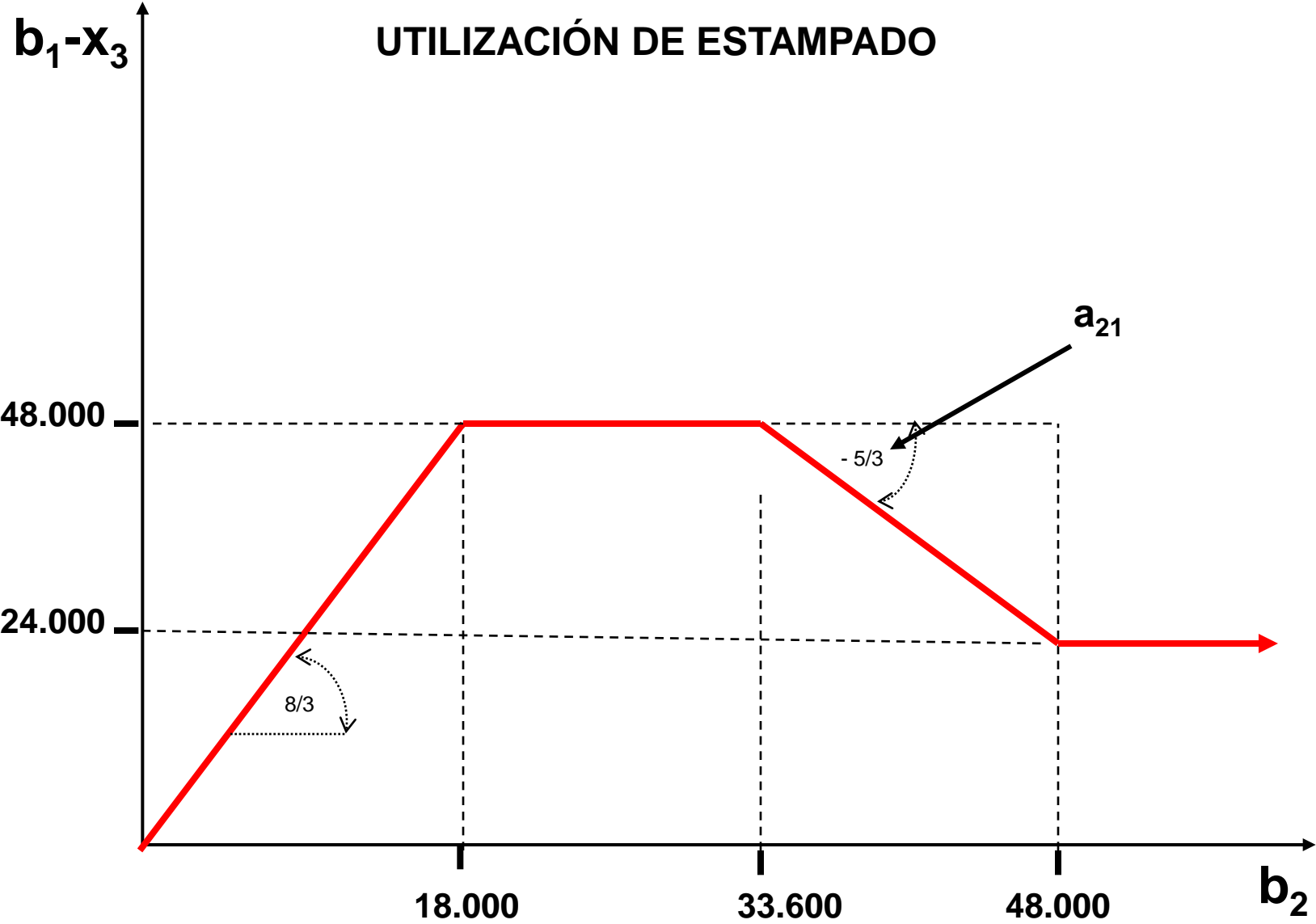
# PRODUCCIÓN DE "A"



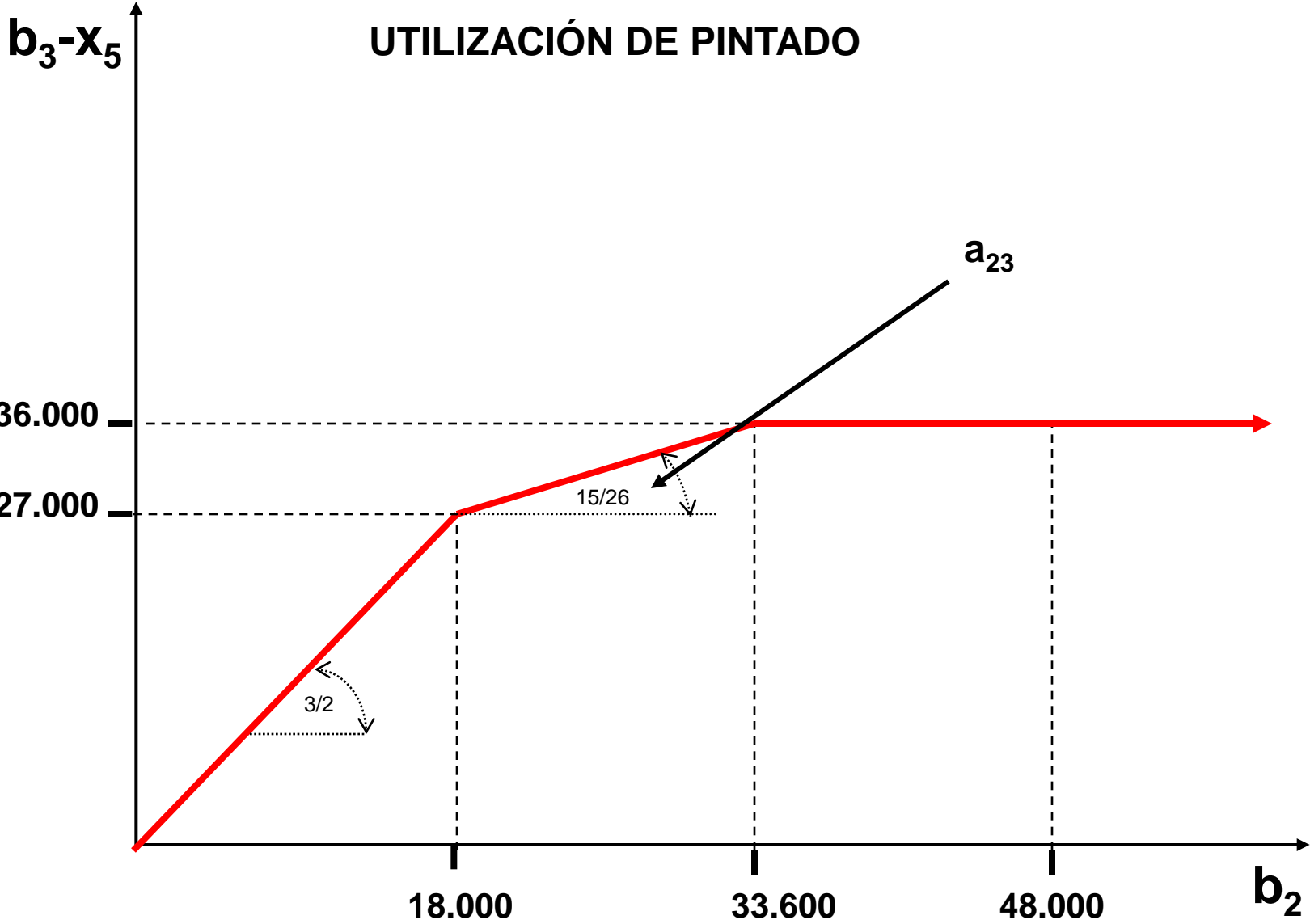
# PRODUCCIÓN DE "B"



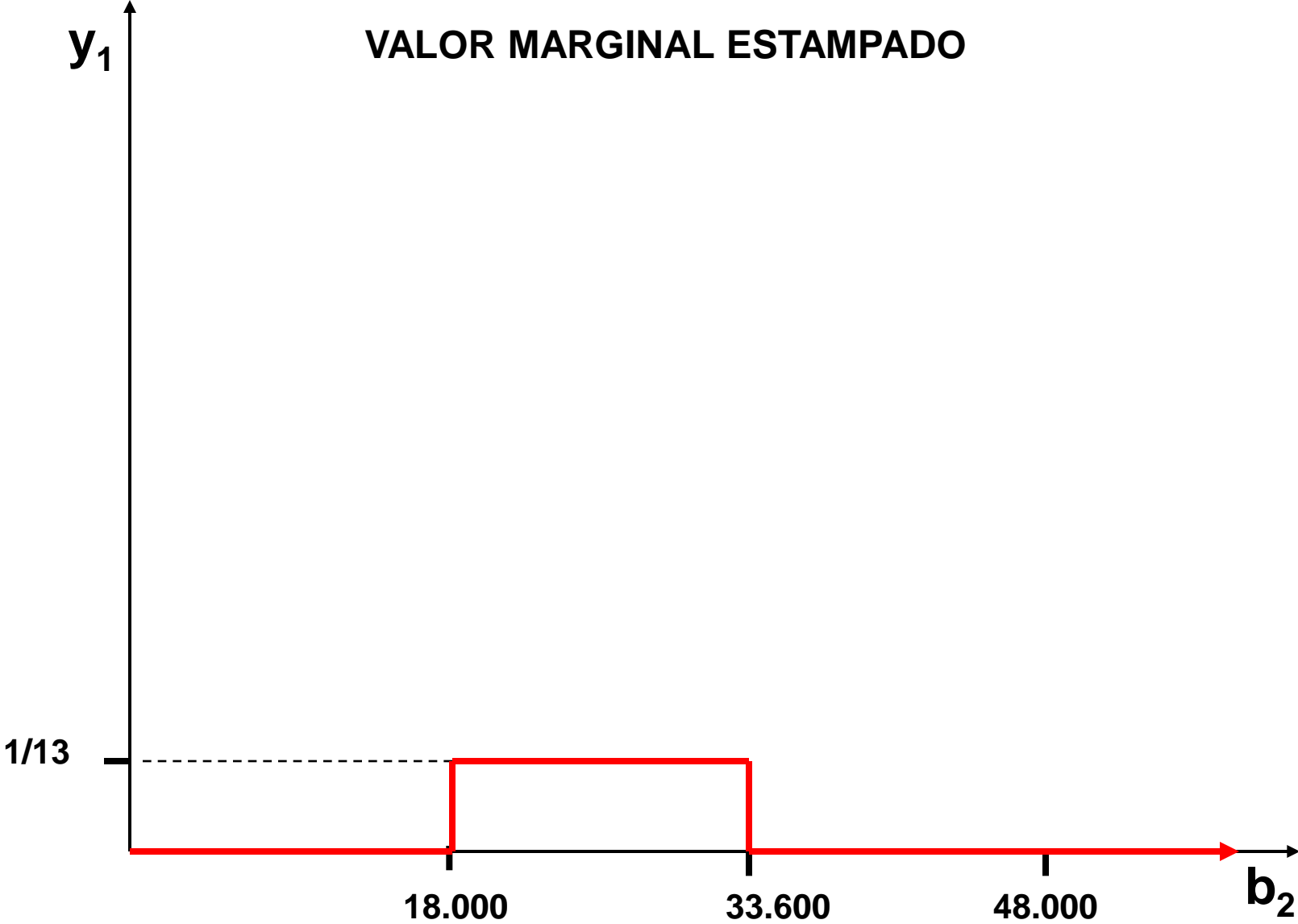
# UTILIZACIÓN DE ESTAMPADO



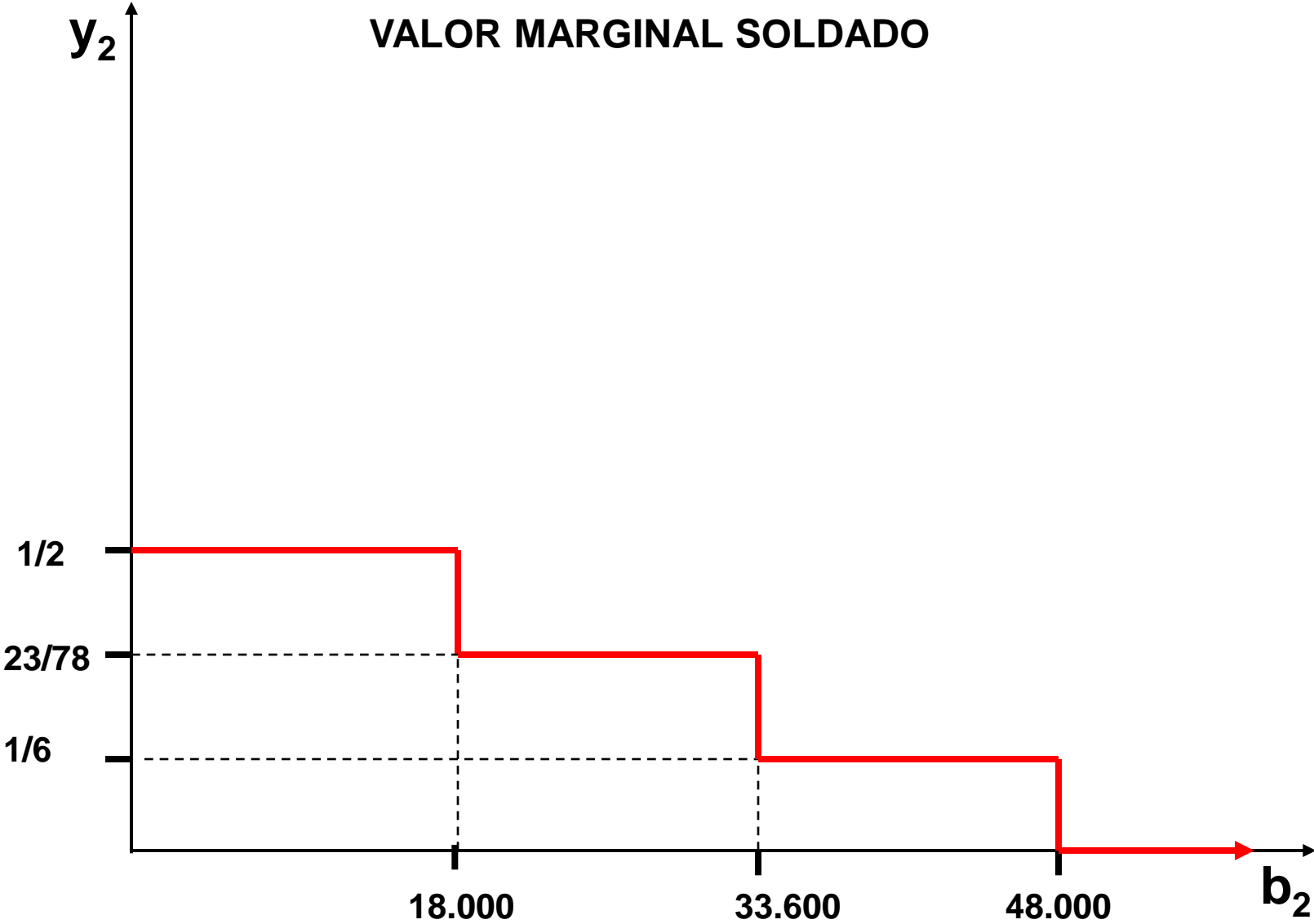
# UTILIZACIÓN DE PINTADO



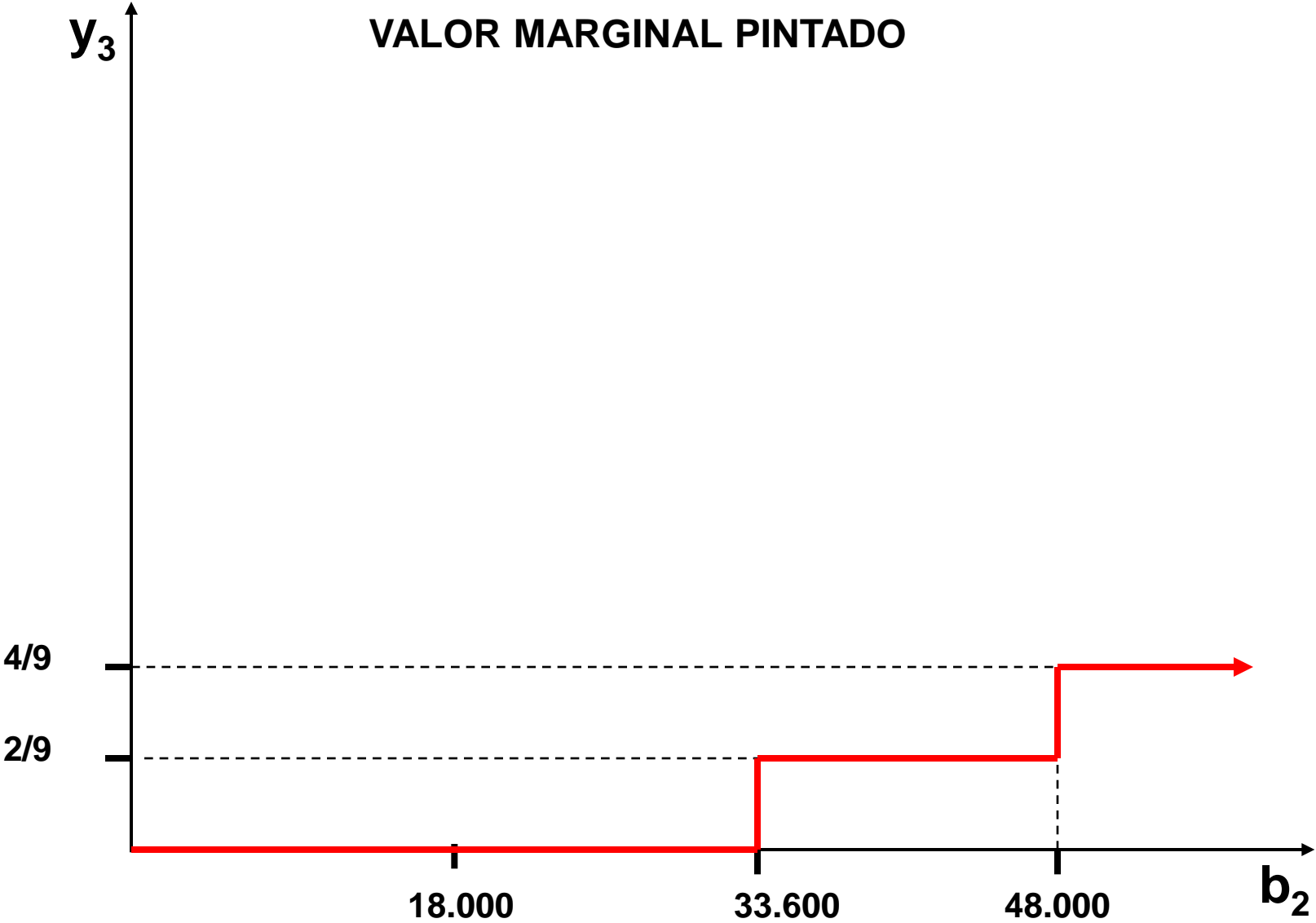
# VALOR MARGINAL ESTAMPADO



# VALOR MARGINAL SOLDADO

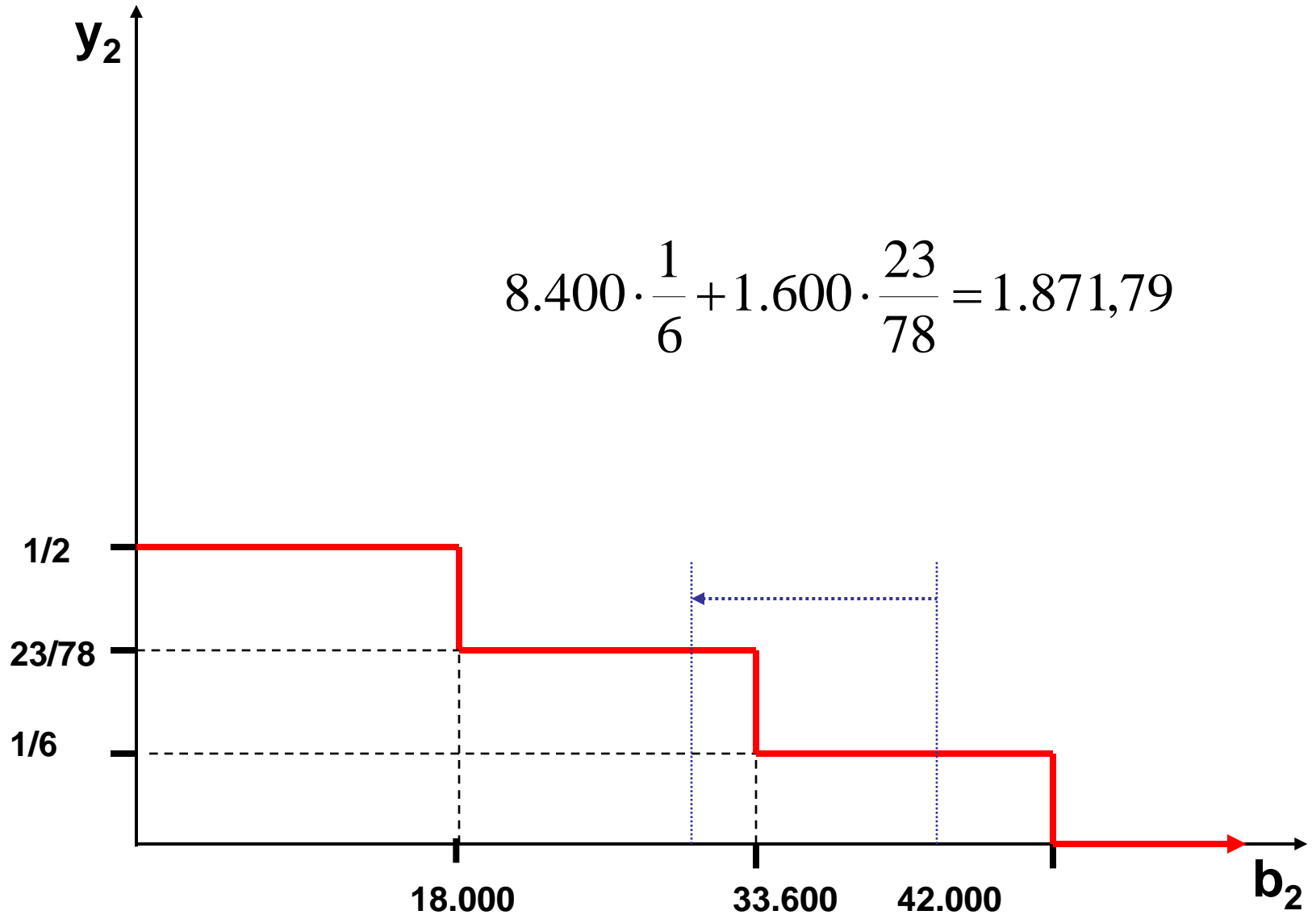


# VALOR MARGINAL PINTADO



A qué valor total se deberían vender 10.000 segundos de soldado por semana a un tercero interesado?





$$8.400 \cdot \frac{1}{6} + 1.600 \cdot \frac{23}{78} = 1.871,79$$