

MATRIZ INVERSA

		c_j	4	3	0	0	0
c_k	x_k	B	A_1	A_2	A_3	A_4	A_5
0	x_3	48.000	6	16	1		
0	x_4	42.000	12	6		1	
0	x_5	36.000	9	9			1
$Z = 0$			- 4	- 3	0	0	0

0	x_3	14.000			1	5/3	-26/9
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

$$\begin{pmatrix} 1 & 5/3 & -26/9 \\ & 1/6 & -1/9 \\ & -1/6 & 2/9 \end{pmatrix} \cdot \begin{pmatrix} 48.000 \\ 42.000 \\ 36.000 \end{pmatrix} = \begin{pmatrix} 14.000 \\ 3.000 \\ 1.000 \end{pmatrix}$$

$$\begin{pmatrix} 1 & 5/3 & -26/9 \\ & 1/6 & -1/9 \\ & -1/6 & 2/9 \end{pmatrix} \cdot \begin{pmatrix} 6 \\ 12 \\ 9 \end{pmatrix} = \begin{pmatrix} 0 \\ 1 \\ 0 \end{pmatrix}$$

$$\begin{pmatrix} 1 & 5/3 & -26/9 \\ & 1/6 & -1/9 \\ & -1/6 & 2/9 \end{pmatrix} \cdot \begin{pmatrix} 0 \\ 1 \\ 0 \end{pmatrix} = \begin{pmatrix} 5/3 \\ 1/6 \\ -1/6 \end{pmatrix}$$

MATRIZ INVERSA

		c_j	4	3	0	0	0
c_k	x_k	B	A₁	A₂	A₃	A₄	A₅
0	x_3	48.000	6	16	1		
0	x_4	42.000	12	6		1	
0	x_5	36.000	9	9			1
$Z = 0$			- 4	- 3	0	0	0

0	$\mathbf{x}_3$	14.000	1			5/3	-26/9	
4	$\mathbf{x}_1$	3.000				1	1/6	-1/9
3	$\mathbf{x}_2$	1.000				1	-1/6	2/9
Z = 15.000			0	0	0	1/6	2/9	

	1	$\frac{5}{3}$	$-\frac{26}{9}$
		$\frac{1}{6}$	$-\frac{1}{9}$
		$-\frac{1}{6}$	$\frac{2}{9}$

ES LA INVERSA DE:

	1	6	16
		12	6
		9	9

MAX: $Z = 4 x_1 + 3 x_2$

Sujeto a:

$$\left\{ \begin{array}{l} 6 x_1 + 16 x_2 \leq 48000 \\ 12 x_1 + 6 x_2 \leq 42000 \\ 9 x_1 + 9 x_2 \leq 36000 \end{array} \right.$$

siendo: $x_1, x_2 \geq 0$ y continuas

INTERPRETACIÓN

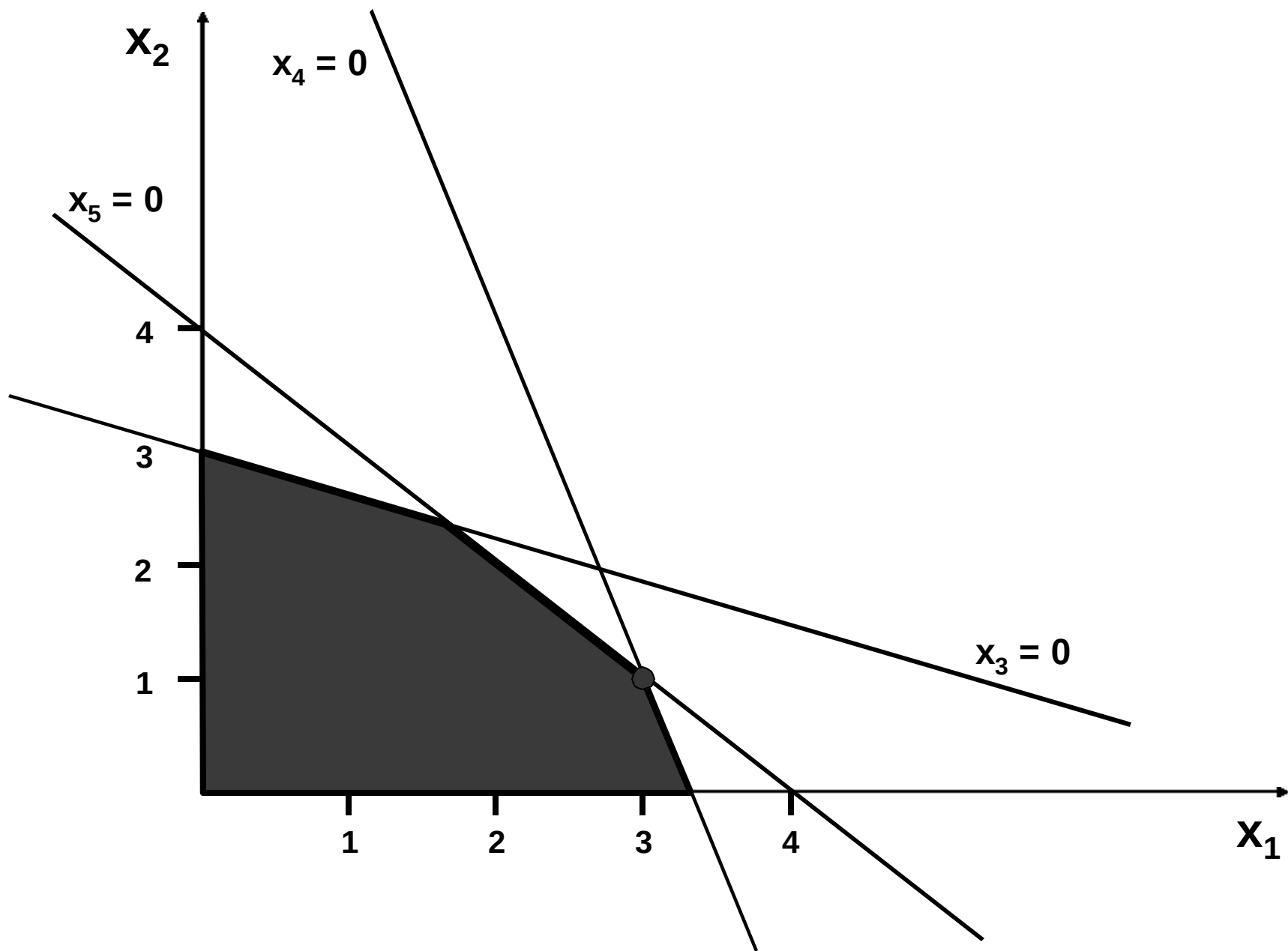
C_k	x_k	B	A_1	A_2	A_3	A_4	A_5
0	x_3	14.000	1	1	1	5/3	-26/9
4	x_1	3.000				1/6	-1/9
3	x_2	1.000				-1/6	2/9
Z = 15.000			0	0	0	1/6	2/9

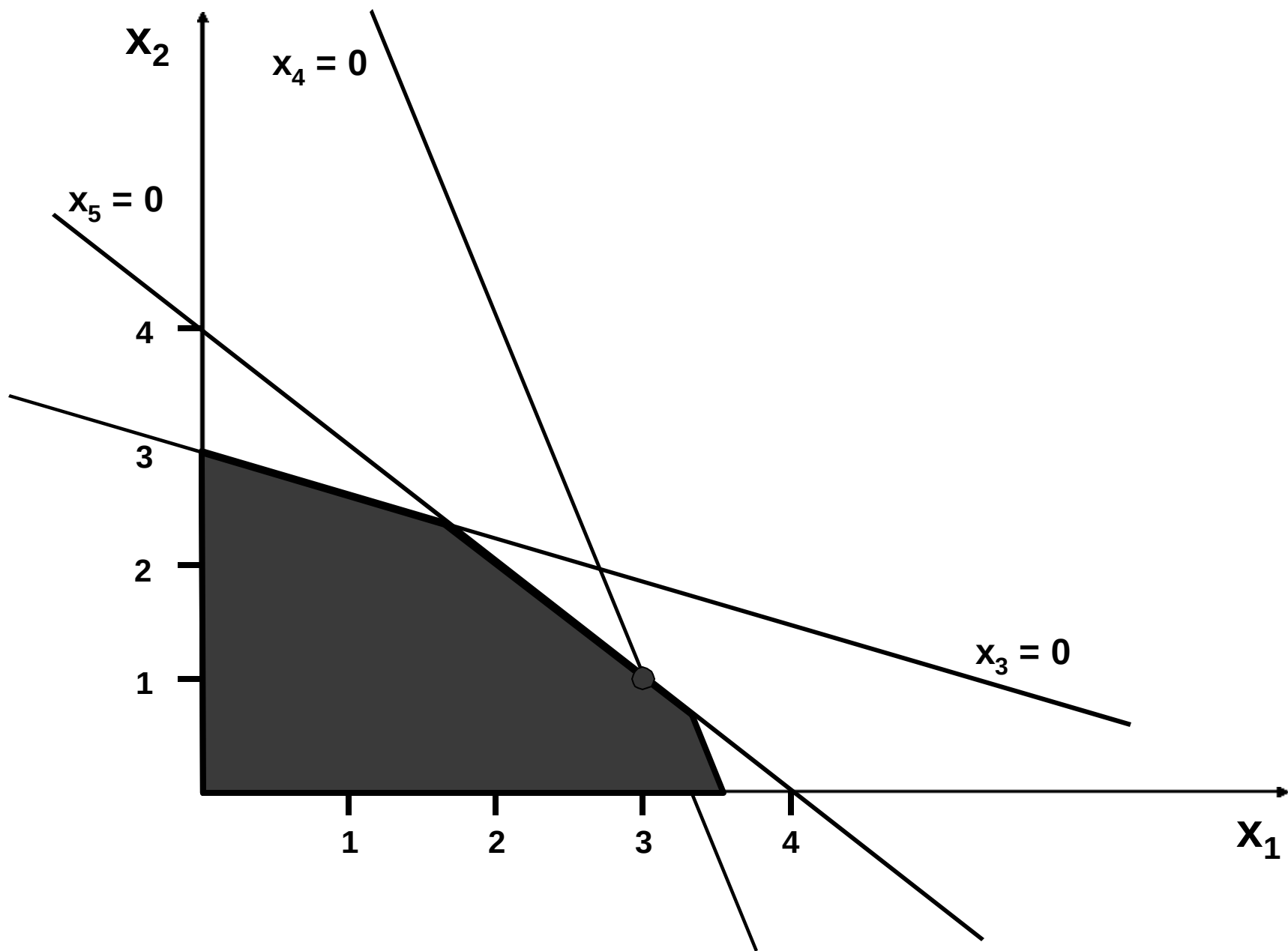
VECTORES ASOCIADOS A SLACKS

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
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

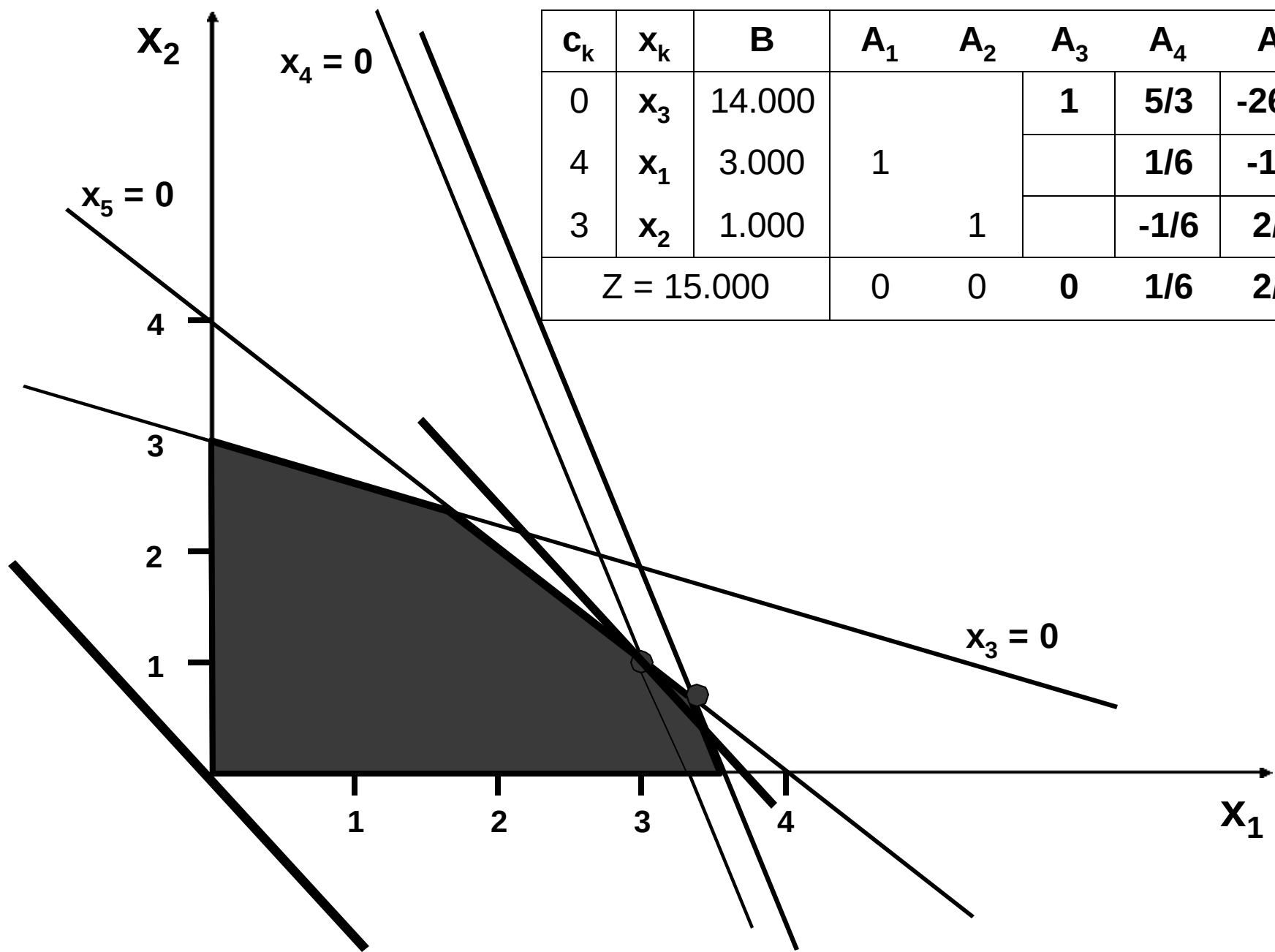


VECTORES ASOCIADOS A SLACKS



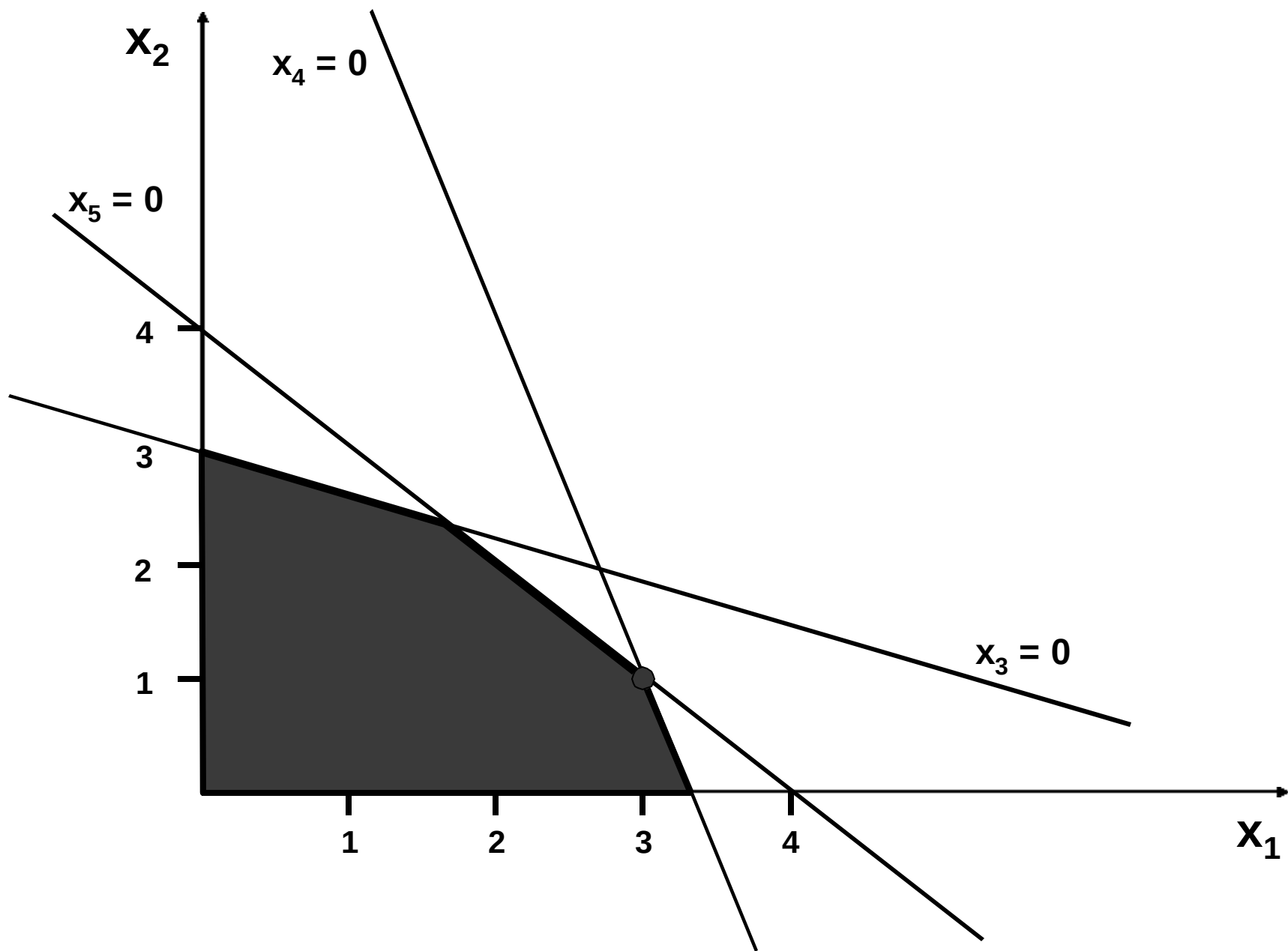


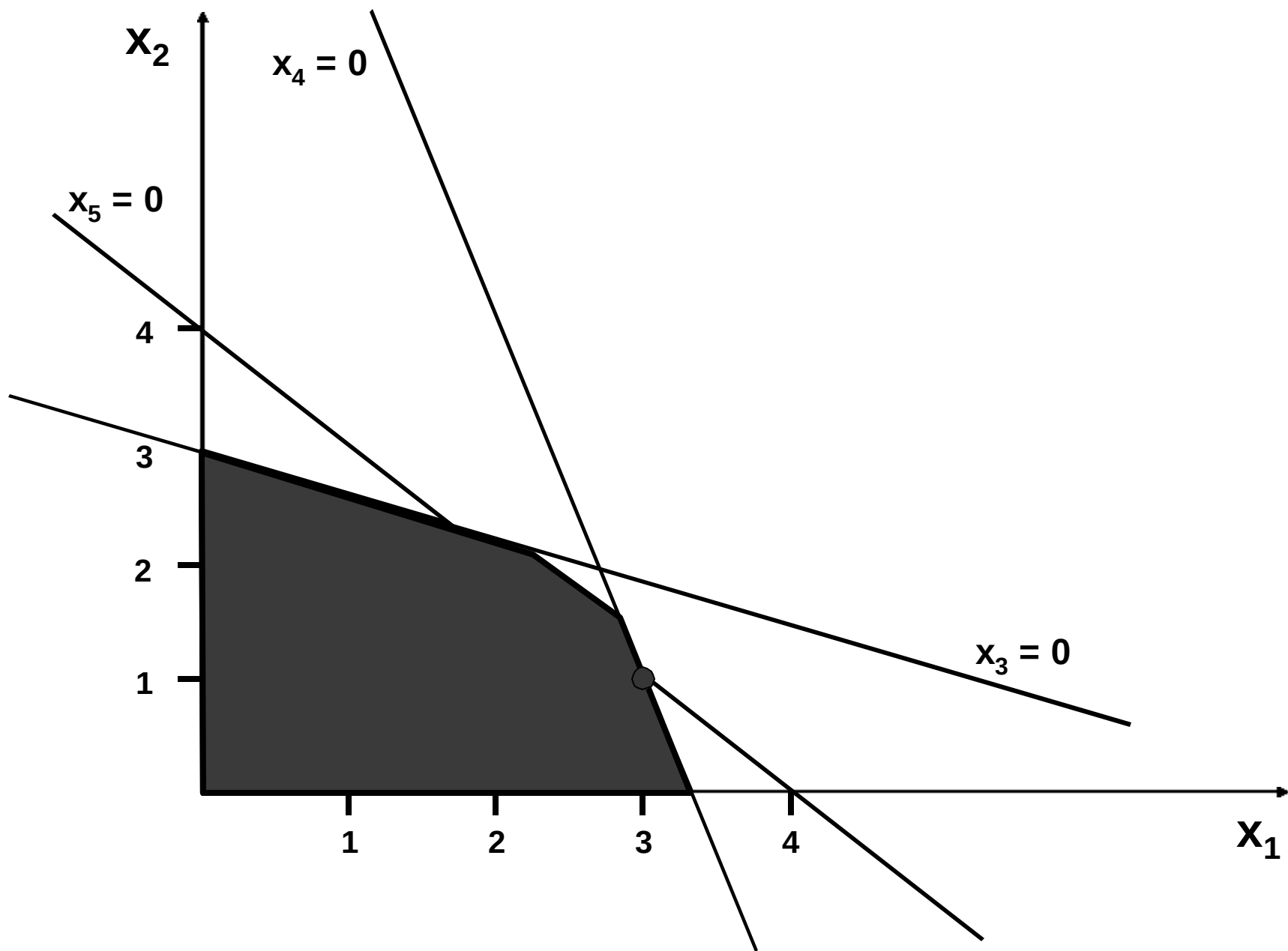
$\mathbf{c_k}$	$\mathbf{x_k}$	$\mathbf{B}$	$\mathbf{A_1}$	$\mathbf{A_2}$	$\mathbf{A_3}$	$\mathbf{A_4}$	$\mathbf{A_5}$
0	$\mathbf{x_3}$	14.000	1	1	1	5/3	-26/9
4	$\mathbf{x_1}$	3.000			1/6	-1/9	
3	$\mathbf{x_2}$	1.000			-1/6	2/9	
Z = 15.000			0	0	0	1/6	2/9

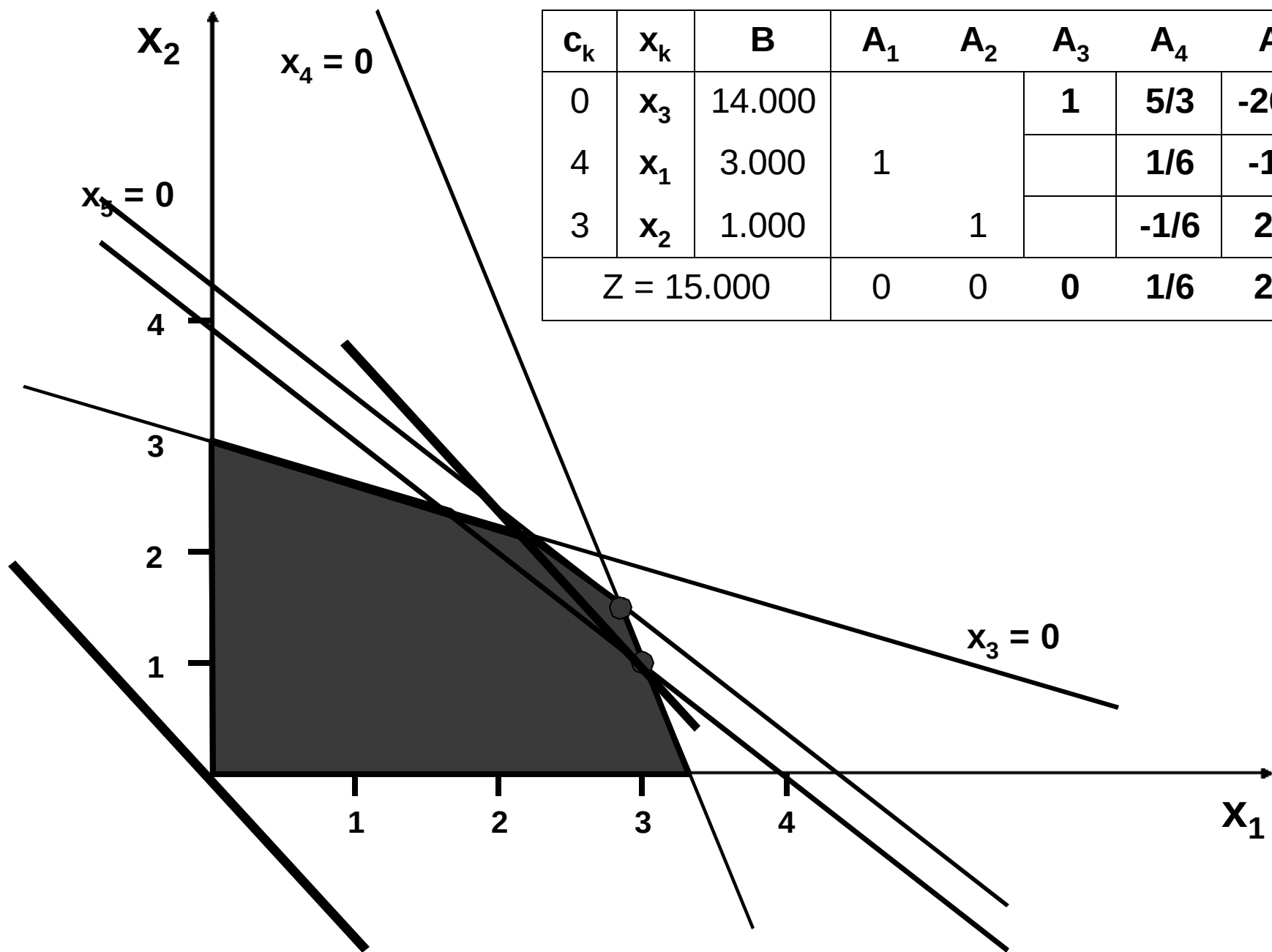


VECTORES ASOCIADOS A SLACKS

C_k	x_k	B	A_1	A_2	A_3	A_4	A_5
0	x_3	14.000	1	1	1	5/3	-26/9
4	x_1	3.000				1/6	-1/9
3	x_2	1.000				-1/6	2/9
Z = 15.000			0	0	0	1/6	2/9



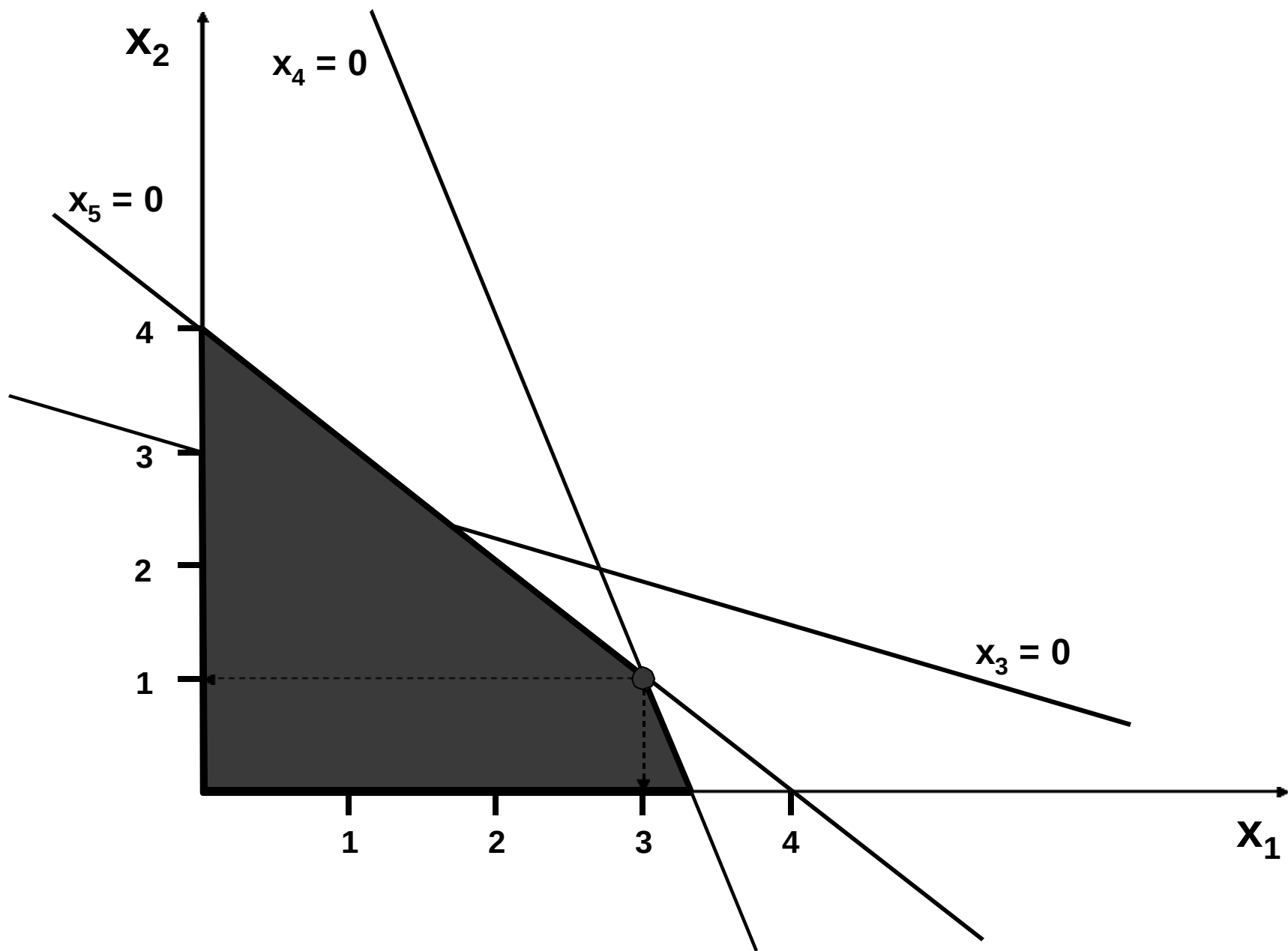




c_k	x_k	B	A_1	A_2	A_3	A_4	A_5
0	x_3	14.000			1	5/3	-26/9
4	x_1	3.000	1			1/6	-1/9
3	x_2	1.000	1			-1/6	2/9
$Z = 15.000$			0	0	0	1/6	2/9

VECTORES ASOCIADOS A SLACKS

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
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



MAX: $Z = 6 x_1 + 2 x_2$

Sujeto a:

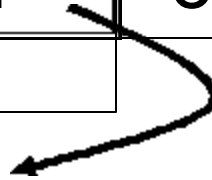
$$\left\{ \begin{array}{l} 6 x_1 + 16 x_2 \leq 48000 \\ 12 x_1 + 6 x_2 \leq 42000 \\ 9 x_1 + 9 x_2 \leq 36000 \end{array} \right.$$

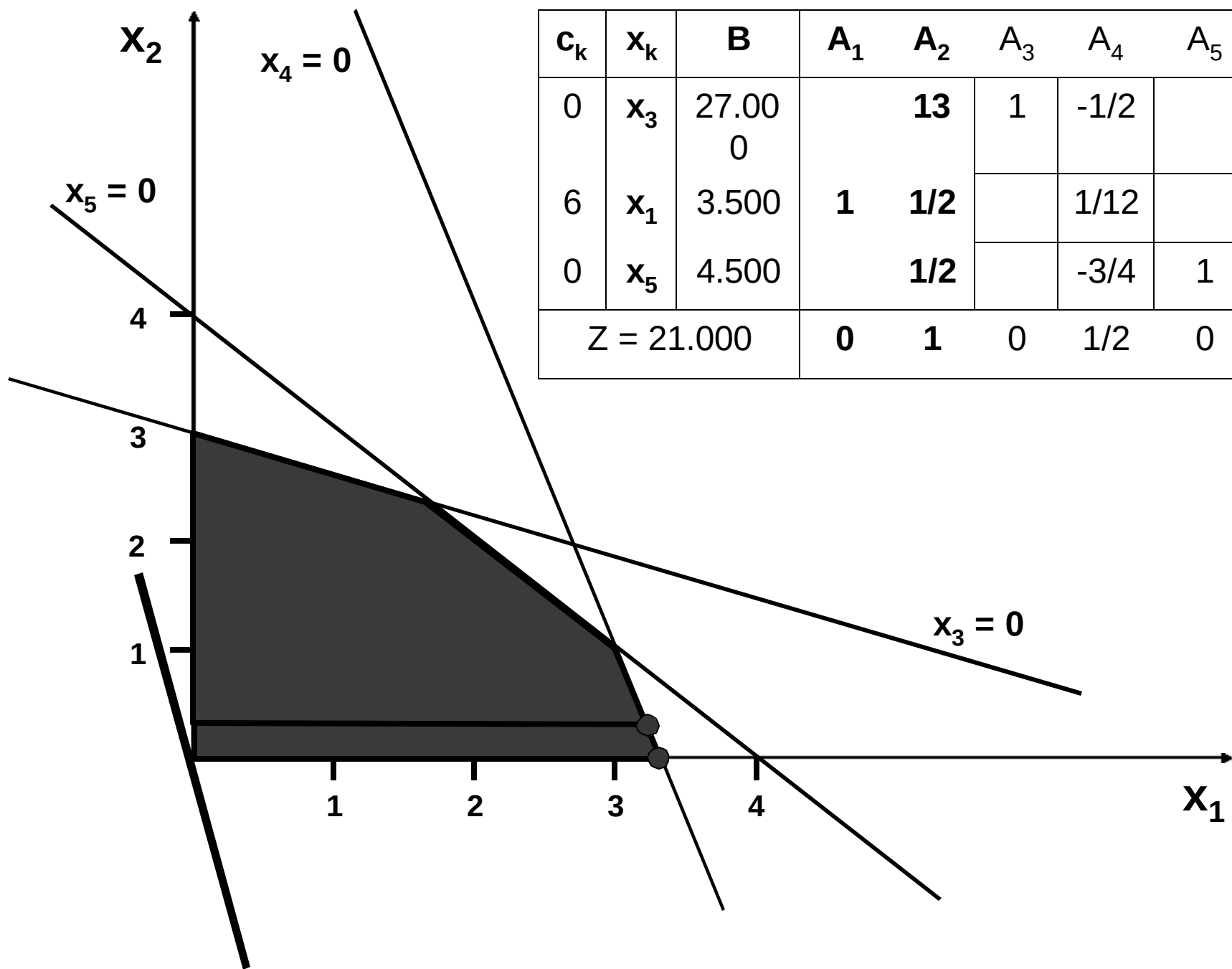
siendo: $x_1, x_2 \geq 0$ y continuas

VECTORES ASOCIADOS A ACTIVIDADES

c_k	x_k	B	A_1	A_2	A_3	A_4	A_5
0	x_3	27.000		13	1	-1/2	
6	x_1	3.500	1	1/2		1/12	
0	x_5	4.500		1/2		-3/4	1
Z = 21.000			0	1	0	1/2	0

COSTOS REDUCIDOS





c_k	x_k	B	A_1	A_2	A_3	A_4	A_5
0	x_3	27.00 0		13	1	-1/2	
6	x_1	3.500	1	1/2		1/12	
0	x_5	4.500		1/2		-3/4	1
Z = 21.000			0	1	0	1/2	0

SISTEMA “LINDO”

MAX Z) 4 X1 + 3 X2

ST

EST) 6 X1 + 16 X2 < 48000

SOL) 12 X1 + 6 X2 < 42000

PIN) 9 X1 + 9 X2 < 36000

END

LP OPTIMUM FOUND AT STEP 2

OBJECTIVE FUNCTION VALUE

Z) 15000.00

VARIABLE	VALUE	REDUCED COST
X1	3000.000000	0.000000
X2	1000.000000	0.000000

ROW	SLACK OR SURPLUS	DUAL PRICES
EST)	14000.000000	0.000000
SOL)	0.000000	0.166667
PIN)	0.000000	0.222222

NO. ITERATIONS= 2