

Maximizar $Z =$ Minimizar $-Z$

$$Z=4X_1-2X_2+5X_3$$

Problema aumentado

$$X_1+4X_2+X_3+X_4=800$$

$$10X_1+5X_2+X_3-X_5+X_8=500$$

$$8X_1-2X_3+X_6=400$$

$$2X_2+X_3+X_7=200$$

FASE I Sólo es necesario añadir dos variables artificiales, x_7 y x_8 , aunque se resuelve igual añadiendo cuatro (una por restricción).

FASE II

Tabla 1			0	0	0	0	0	0	-1	-1
Base	Cb	P0	P1	P2	P3	P4	P5	P6	P7	P8
P4	0	800	1	4	1	1	0	0	0	0
P8	-1	500	10	5	1	0	-1	0	0	1
P6	0	400	8	0	-2	0	0	1	0	0
P7	-1	200	0	2	1	0	0	0	1	0
Z		-700	-10	-7	-2	0	1	0	0	0

Tabla 3			0	0	0	0	0	0	-1	-1
Base	Cb	P0	P1	P2	P3	P4	P5	P6	P7	P8
P4	0	750	0	0	-1.55	1	0.8	0.875	0	-0.8
P2	0	0	0	1	0.7	0	-0.2	-0.25	0	0.2
P1	0	50	1	0	-0.25	0	0	0.125	0	0
P7	-1	200	0	0	-0.4	0	0.4	0.5	1	-0.4
Z		-200	0	0	0.4	0	-0.4	-0.5	0	1.4

Tabla 4			0	0	0	0	0	0	-1	-1
Base	Cb	P0	P1	P2	P3	P4	P5	P6	P7	P8
P4	0	400	0	0	-0.85	1	0.1	0	-1.75	-0.1
P2	0	100	0	1	0.5	0	0	0	0.5	0
P1	0	0	1	0	-0.15	0	-0.1	0	-0.25	0.1
P6	0	400	0	0	-0.8	0	0.8	1	2	-0.8
Z		0	0	0	0	0	0	0	1	1

Tabla 1			4	-2	5	0	0	0
Base	Cb	P0	P1	P2	P3	P4	P5	P6
P4	0	400	0	0	-0.85	1	0.1	0
P2	-2	100	0	1	0.5	0	0	0
P1	4	0	1	0	-0.15	0	-0.1	0
P6	0	400	0	0	-0.8	0	0.8	1
Z		-200	0	0	-6.6	0	-0.4	0

Tabla 2			4	-2	5	0	0	0
Base	Cb	P0	P1	P2	P3	P4	P5	P6
P4	0	570	0	1.7	0	1	0.1	0
P3	5	200	0	2	1	0	0	0
P1	4	30	1	0.3	0	0	-0.1	0
P6	0	560	0	1.6	0	0	0.8	1
Z		1120	0	13.2	0	0	-0.4	0

Tabla 3			4	-2	5	0	0	0
Base	Cb	P0	P1	P2	P3	P4	P5	P6
P4	0	500	0	1.5	0	1	0	-0.125
P3	5	200	0	2	1	0	0	0
P1	4	100	1	0.5	0	0	0	0.125
P5	0	500	0	2	0	0	1	1.25
Z		1400	0	14	0	0	0	0.5

Solución
Máximo 1400
 $X_1=100$
 $X_2=0$
 $X_3=200$