

REPORTE MÉTODO BIG M

Función Objetivo: $\text{Min } Z = 2X_1 + 3X_2$

S.R:

$$1X_1 + 1X_2 \geq 350$$

$$1X_1 + 0X_2 \geq 125$$

$$2X_1 + 1X_2 \leq 600$$

$$X_1 \geq 0; X_2 \geq 0; X_3 \leq 0;$$

La solución óptima es $Z = 800$

$$X_1 = 250, X_2 = 100, X_3 = 0, X_4 = 125, X_5 = 0, A_1 = 0, A_2 = 0,$$

Iteración #0

	CJ	2	3	0	0	0	M	M	
CB	XB	X1	X2	X3	X4	X5	A1	A2	BI
M	A1	1	1	-1	0	0	1	0	350
M	A2	1	0	0	-1	0	0	1	125
0	X5	2	1	0	0	1	0	0	600
	ZJ	2M	1M	-1M	-1M	0	1M	1M	475M
	ZJ-CJ	-2M+2	-1M+3	1M	1M	0	0	0	

Iteración #1

	CJ	2	3	0	0	0	M	M	
CB	XB	X1	X2	X3	X4	X5	A1	A2	BI
M	A1	0	1	-1	1	0	1	-1	225
2	X1	1	0	0	-1	0	0	1	125
0	X5	0	1	0	2	1	0	-2	350
	ZJ	2	1M	-1M	1M-2	0	1M	-1M+2	225M+250
	ZJ-CJ	0	-1M+3	1M	-1M+2	0	0	2M-2	

Iteración #2

	CJ	2	3	0	0	0	M	M	
CB	XB	X1	X2	X3	X4	X5	A1	A2	BI
M	A1	0	1/2	-1	0	-1/2	1	0	50
2	X1	1	1/2	0	0	1/2	0	0	300
0	X4	0	1/2	0	1	1/2	0	-1	175
	ZJ	2	$1/2M+1$	$-1M$	0	$-1/2M+1$	$1M$	0	$50M+600$
	ZJ-CJ	0	$-1/2M+2$	$1M$	0	$1/2M-1$	0	$1M$	

Iteración #3

	CJ	2	3	0	0	0	M	M	
CB	XB	X1	X2	X3	X4	X5	A1	A2	BI
3	X2	0	1	-2	0	-1	2	0	100
2	X1	1	0	1	0	1	-1	0	250
0	X4	0	0	1	1	1	-1	-1	125
	ZJ	2	3	-4	0	-1	4	0	800
	ZJ-CJ	0	0	4	0	1	1M-4	1M	