Linear Programming with Excel Solver

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Maximización

Iteration 1		C_j	5	8	0	0	0	$-M$	
B	C_B	C_B	x_1	x_2	S_1	S_2	S_3	A_1	Min: X_B/x_1
S_1	0	40	2	4	1	0	0	0	$40/2 = 20$
S_2	0	42	6	3	0	1	0	0	$42/6 = 7$
A_1	$-M$	3	(1)	0	0	0	M	$-M$	
$Z = -3M$		Z_j	$-M$	0	0	0	M	$-M$	
		$Z_j - C_j$	$-M-5$	-8	0	0	M	0	

Table 1: paso 1.

Iteration 2		C_j	5	8	0	0	0	
B	C_B	X_B	x_1	x_2	S_1	S_2	S_3	Min: X_B/x_2
S_1	0	34	0	4	1	0	2	$34/4 = 8.5$
S_2	0	24	0	(3)	0	1	6	$24/3 = 8$
x_1	5	3	1	0	0	0	-1	—
$Z = 15$		Z_j	5	0	0	0	-5	
		$Z_j - C_j$	0	-8	0	0	-5	

Table 2: paso 2.

Iteration 3		C_j	5	8	0	0	0	
B	C_B	X_B	x_1	x_2	S_1	S_2	S_3	Min:
S_1	0	2	0	0	1	-1.3333	-6	
x_2	8	8	0	1	0	0.3333	2	
x_1	5	3	1	0	0	0	-1	
$z = 79$		Z_j	5	8	0	2.6667	11	
		$Z_j - C_j$	0	0	0	2.6667	11	

Table 3: paso 3.