Maximize Z = 2*X_1 + 3*X_2

Constraints

2*X_1 + X_2 <= 4

X_1 + 2*X_2 <= 5

X_1 , X_2 >= 0

Step-1: Convert inequalities into equality by introducing slack variable

2*X_1 + X_2 + S_1 = 4

X_1 + 2*X_2 + S_2 = 5

S_1 , S_2 are slack variables

S_1, S_2 > = 0

Step-2: Rewrite objective function Z

Z - 2*X_1 - 3*X_2 = 0

Step-3: make a simplex table

	Col-1	Col-2	Col-3	Col-4	Col-5
	X_1	X_2	S_1	S_2	Z	Solution
Row-1	2	1	1	0	0	4
Row-2	1	2	0	1	0	5
Row-3	-2	-3	0	0	0	0