

LINEAR PROGRAMMING PROBLEM

MIN  $0.75X_1 + 0.6X_2$

S.T.

- 1)  $30X_1 + 20X_2 > 300$
- 2)  $40X_1 + 25X_2 < 500$
- 3)  $12X_1 + 15X_2 < 250$
- 4)  $150X_1 + 100X_2 > 1700$
- 5)  $150X_1 + 100X_2 < 2000$
- 6)  $X_1 < 7$

OPTIMAL SOLUTION

Objective Function Value = 9.150

Variable	Value	Reduced Costs
X1	7.000	0.000
X2	6.500	0.000

Constraint	Slack/Surplus	Dual Prices
1	40.000	0.000
2	57.500	0.000
3	68.500	0.000
4	0.000	-0.006
5	300.000	0.000
6	0.000	0.150

OBJECTIVE COEFFICIENT RANGES

Variable	Lower Limit	Current Value	Upper Limit
X1	No Lower Limit	0.750	0.900
X2	0.500	0.600	No Upper Limit

RIGHT HAND SIDE RANGES

Constraint	Lower Limit	Current Value	Upper Limit
1	No Lower Limit	300.000	340.000
2	442.500	500.000	No Upper Limit
3	181.500	250.000	No Upper Limit
4	1500.000	1700.000	1930.000
5	1700.000	2000.000	No Upper Limit
6	0.476	7.000	11.333