

Minimize: $150u_1 + 20u_2 + 300u_3$

s.t.

$$3u_1 + 8u_3 \geq 50$$

$$5u_1 + 1u_2 + 5u_3 \geq 40$$

$$u_1, u_2 \geq 0$$

Solution:

Objective Function Value = 1980.000000

Variable	Value	Reduced Costs
U1	2.800000	0.000005
U2	0.000000	8.000001
U3	5.200000	0.000005

Constraint	Slack/Surplus	Dual Prices
1	0.000000	-30.000000
2	0.000000	-11.999999

Maximize: $50x_1 + 40x_2$

s.t.

$$3x_1 + 5x_2 \leq 150$$

$$1x_2 \leq 20$$

$$8x_1 + 5x_2 \leq 300$$

$$x_1, x_2 \geq 0$$

Solution:

Objective Function Value = 1980.000000

Variable	Value	Reduced Costs
X1	30.000002	0.000000
X2	12.000001	0.000000

Constraint	Slack/Surplus	Dual Prices
1	0.000000	2.800000
2	7.999999	0.000000
3	0.000000	5.200000