Transportation Problem Examples

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Contents

1 Transportation Problem 1

1.1 The Problem

	D_1	D_2	D_3	Supply
S_1	10.0	20.0	15.0	60.0
S_2	22.0	9.0	21.0	60.0
Demand	30.0	40.0	50.0	

Table 1:

1.2 The Solution

	D_1	D_2	D_3	Supply
S_1	10.0 $_{(30.0)}$	20.0	15.0 $_{(30.0)}$	60.0
S_2	22.0	9.0 $_{(40.0)}$	21.0 $_{(20.0)}$	60.0
Demand	30.0	40.0	50.0	

Table 2: Total cost: 1530.0

2 Transportation Problem 2

2.1 The Problem

	D_1	D_2	D_3	D_4	Supply
S_1	94.0	23.0	57.0	66.0	88.0
S_2	77.0	12.0	59.0	27.0	68.0
Demand	13.0	81.0	70.0	48.0	

Table 3: Problem 1

2.2 The Solution

	D_1	D_2	D_3	D_4	Supply
S_1	94.0	23.0 (61.0)	57.0 (27.0)	66.0	88.0
S_2	77.0	12.0 (20.0)	59.0	27.0 (48.0)	68.0
S_3	0.0 (13.0)	0.0	0.0 (43.0)	0.0	56.0
Demand	13.0	81.0	70.0	48.0	

Table 4: Total cost: 4478.0

3 Transportation Problem 3

3.1 The Problem

	D_1	D_2	Supply
S_1	10.0	20.0	60.0
S_2	22.0	9.0	60.0
S_3	10.0	30.0	30.0
Demand	30.0	40.0	

Table 5: Problem

3.2 Initial Feasible Solution with North-West Corner

	D_1	D_2	D_3	Supply
S_1	10.0 (30.0)	20.0 (30.0)	0.0	60.0
S_2	22.0	9.0 (10.0)	0.0 (50.0)	60.0
S_3	10.0	30.0	0.0 (30.0)	30.0
Demand	30.0	40.0	80.0	

Table 6: Total cost: 990.0

3.3 The Solution

	D_1	D_2	D_3	Supply
S_1	10.0	20.0	0.0 (60.0)	60.0
S_2	22.0	9.0 (40.0)	0.0 (20.0)	60.0
S_3	10.0 (30.0)	30.0	0.0	30.0
Demand	30.0	40.0	80.0	

Table 7: Total cost: 660.0