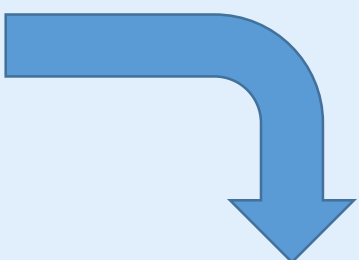


Least Cost Method

Algorithm

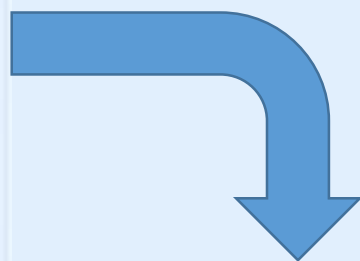
Least Cost Method (LCM) Steps (Rule)	
Step-1:	Select the cell having minimum unit cost c_{ij} and allocate as much as possible, i.e. $\min(s_i, d_j)$.
Step-2:	a. Subtract this $\min$ value from supply s_i and demand d_j. b. If the supply s_i is 0, then cross (strike) that row and If the demand d_j is 0 then cross (strike) that column. c. If min unit cost cell is not unique, then select the cell where maximum allocation can be possible
Step-3:	Repeat this steps for all uncrossed (unstriked) rows and columns until all supply and demand values are 0.

	D1	D2	D3	D4	Supply
S1	19	30	50	10	7
S2	70	30	40	60	9
S3	40	8	70	20	18
Demand	5	8	7	14	



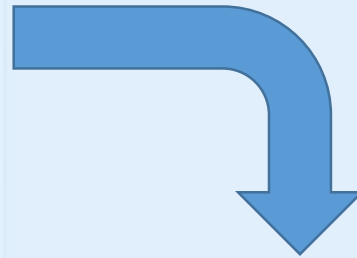
	D_1	D_2	D_3	D_4	Supply
S_1	19	30	50	10	7
S_2	70	30	40	60	9
S_3	40	8(8)	70	20	10
Demand	5	0	7	14	

	D_1	D_2	D_3	D_4	Supply
S_1	19	30	50	10	7
S_2	70	30	40	60	9
S_3	40	8(8)	70	20	10
Demand	5	0	7	14	



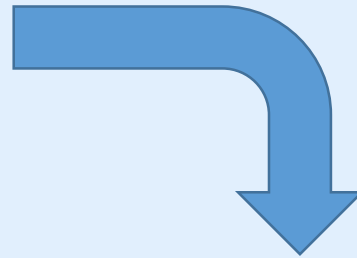
	D_1	D_2	D_3	D_4	Supply
S_1	19	30	50	10(7)	0
S_2	70	30	40	60	9
S_3	40	8(8)	70	20	10
Demand	5	0	7	7	

	D_1	D_2	D_3	D_4	Supply
S_1	19	30	50	10(7)	0
S_2	70	30	40	60	9
S_3	40	8(8)	70	20	10
Demand	5	0	7	7	



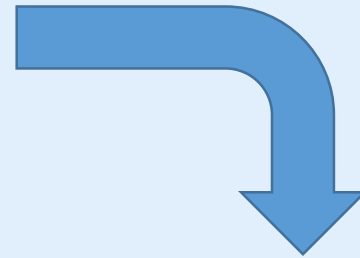
	D_1	D_2	D_3	D_4	Supply
S_1	19	30	50	10(7)	0
S_2	70	30	40	60	9
S_3	40	8(8)	70	20(7)	3
Demand	5	0	7	0	

	D_1	D_2	D_3	D_4	Supply
S_1	19	30	50	10(7)	0
S_2	70	30	40	60	9
S_3	40	8(8)	70	20(7)	3
Demand	5	0	7	0	



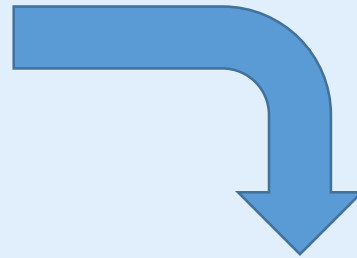
	D_1	D_2	D_3	D_4	Supply
S_1	19	30	50	10(7)	0
S_2	70	30	40(7)	60	2
S_3	40	8(8)	70	20(7)	3
Demand	5	0	0	0	

	D_1	D_2	D_3	D_4	Supply
S_1	19	30	50	10(7)	0
S_2	70	30	40(7)	60	2
S_3	40	8(8)	70	20(7)	3
Demand	5	0	0	0	



	D_1	D_2	D_3	D_4	Supply
S_1	19	30	50	10(7)	0
S_2	70	30	40(7)	60	2
S_3	40(3)	8(8)	70	20(7)	0
Demand	2	0	0	0	

	D_1	D_2	D_3	D_4	Supply
S_1	19	30	50	10(7)	0
S_2	70	30	40(7)	60	2
S_3	40(3)	8(8)	70	20(7)	0
Demand	2	0	0	0	



	D_1	D_2	D_3	D_4	Supply
S_1	19	30	50	10(7)	0
S_2	70(2)	30	40(7)	60	0
S_3	40(3)	8(8)	70	20(7)	0
Demand	0	0	0	0	

	D_1	D_2	D_3	D_4	Supply
S_1	19	30	50	10 (7)	7
S_2	70 (2)	30	40 (7)	60	9
S_3	40 (3)	8 (8)	70	20 (7)	18
Demand	5	8	7	14	

The minimum total transportation cost = $10 \times 7 + 70 \times 2 + 40 \times 7 + 40 \times 3 + 8 \times 8 + 20 \times 7 = 814$