Mohammad Ali Jinnah University
Department of Computer Science
CS2420: Operations Research
Semester Spring 2022

Dated: 16th May 2022
Due Date: 24th May 2022 (In class)
Home Work # 7
Total Points 60

TRANSPORTATION ALGORITHM (60 points, 10 points each)

Home Work # 7

Name: Muhammad Fahad

ID: FA19-BSSE-0014

Teacher: Dr. Abdul Qadar Kara

Section: BM

Solve the transportation problem for each of the following models. The number in the cell is the cost, the number left of each row is the supply and the number below each column is the demand.

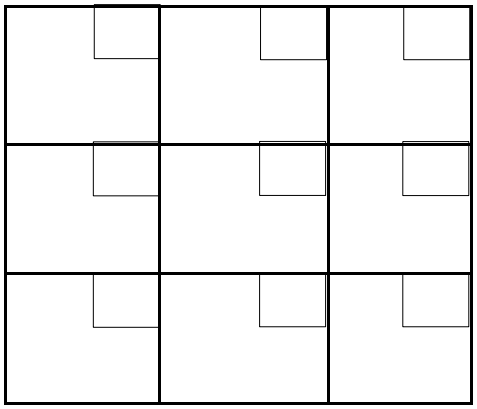
1	2	5	9
2	0	1	6
4	2	3	5
5	5	10	

10	2	4	8
2	4	3	5
1	0	2	6
7	6	6	

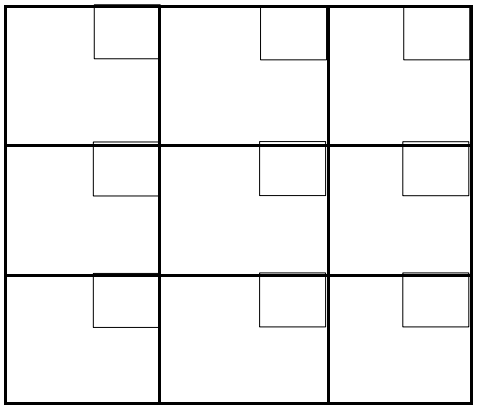
Find the initial feasible solution generated using all three methods. Then, using these initial feasible solutions, find the optimal solution using Transportation Algorithm.

Q.1

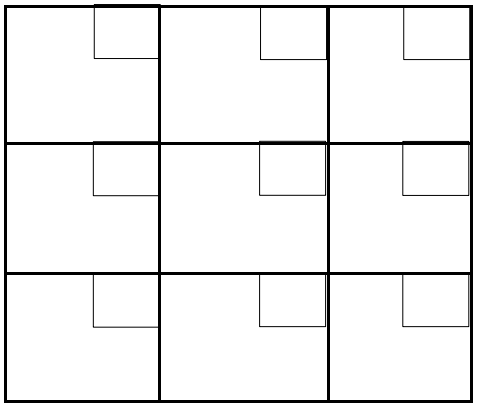
The Northwest Corner Method

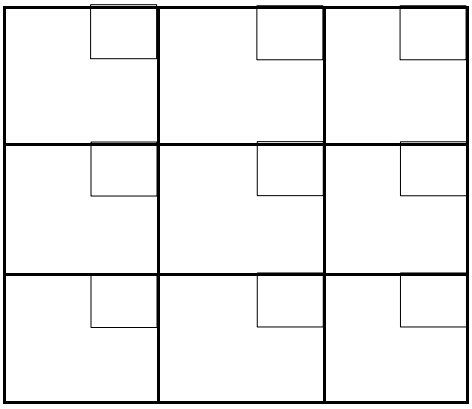


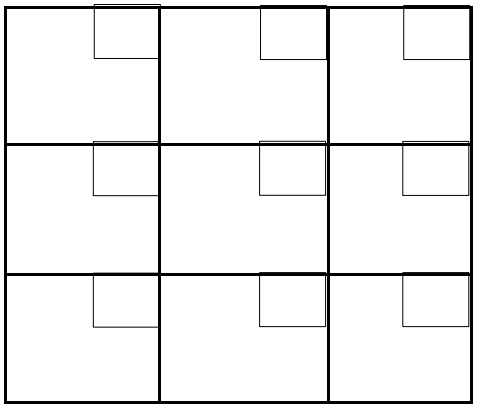
The Minimum Cost Method

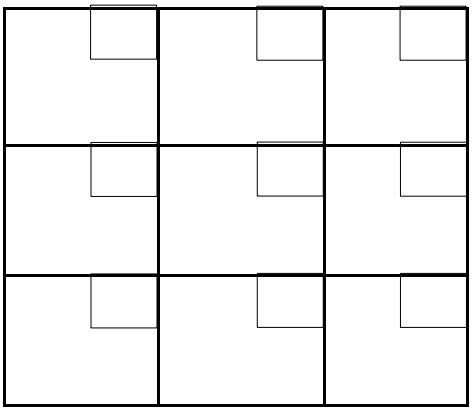


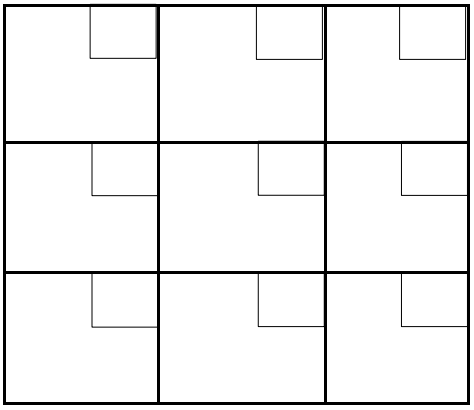
Vogel's Approximation Method (VAM)



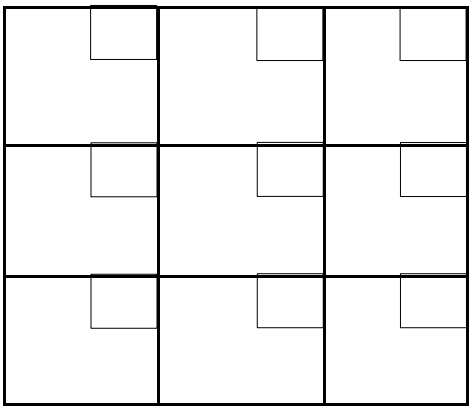


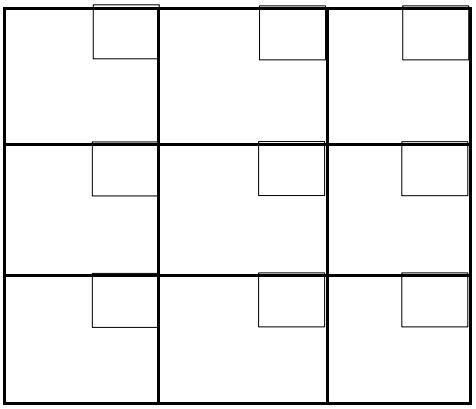


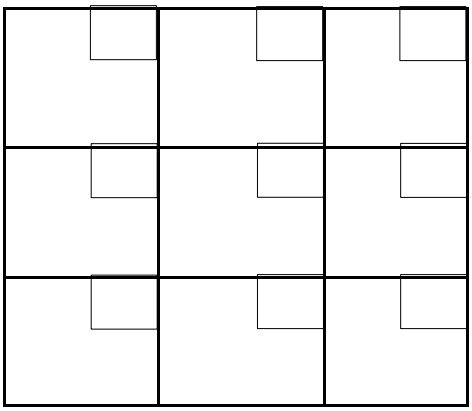




Finding optimality:

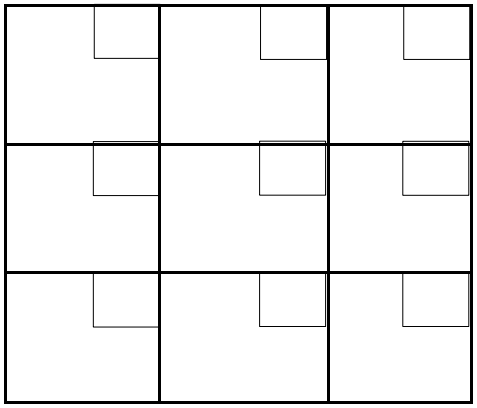




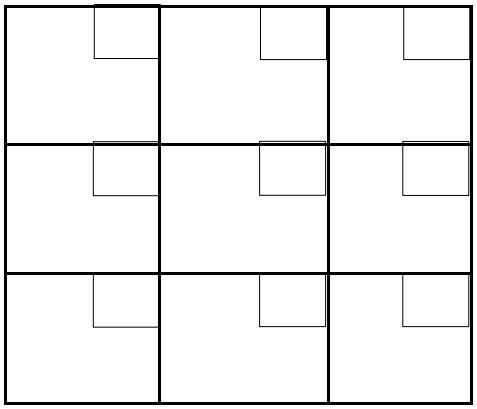


Q.2

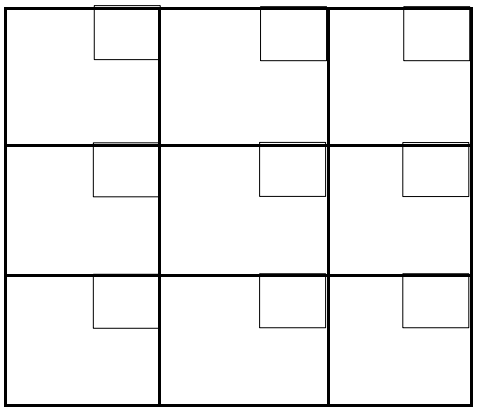
The Northwest Corner Method

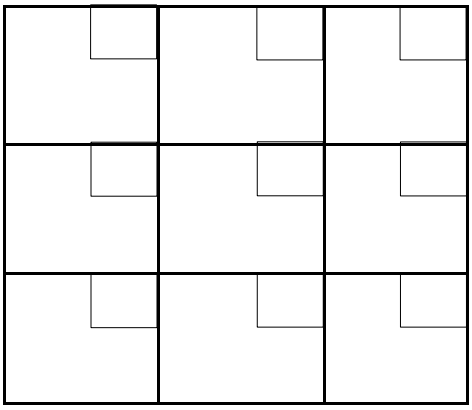


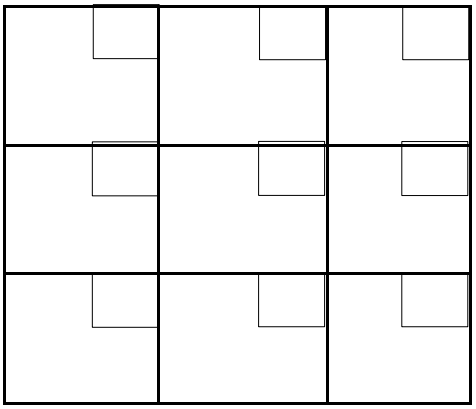
The Minimum Cost Method

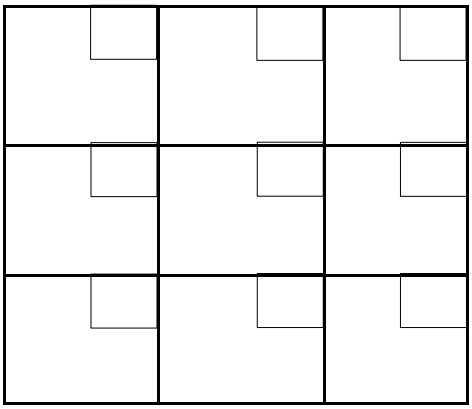


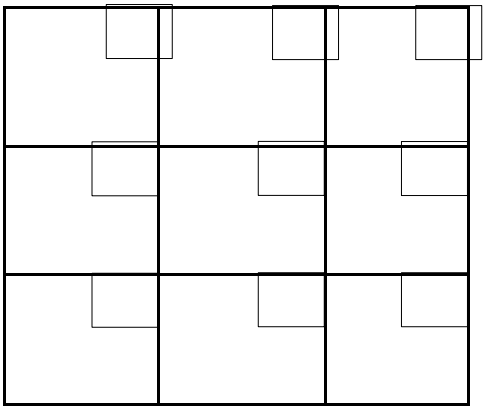
Vogel's Approximation Method (VAM)











Finding optimality: