TEST N°6:

A company needs to transport goods from 3 warehouses to 3 retail stores. The supply at each warehouse and the demand at each store are given below. The goal is to minimize the transportation cost while meeting the demand of each store and ensuring the supply from each warehouse is fully utilized.

- **Supply at Warehouses:** **Demand at Retail Stores:**
  - Warehouse 1: 100 units — Store A: 90 units
  - Warehouse 2: 60 units — Store B: 60 units
  - Warehouse 3: 40 units — Store C: 50 units
- **Transportation Costs (per unit):**

	Store A	**Store B**	**Store C**
Warehouse 1	$5	$8	$6
Warehouse 2	$4	$6	$7
Warehouse 3	$3	$5	$4

Questions: 1- Arrange the data in the matrix form?

2- Formulate the balanced transportation problem as a linear programming model?

3-Using the **Northwest Corner Method** and **the Least Cost Method**, find an initial feasible solution for the transportation problem. Calculate the total costs? Explain the difference?