

## §7.1 (PART 1): FORMULATING TRANSPORTATION PROBLEMS

- 1.] MG Auto has three plants in Los Angeles, Detroit, and New Orleans and two major distribution centers in Denver and Miami. The quarterly capacities of the three plants are 1000, 1500, and 1200 cars, and the demands at the two distribution centers for the same period are 2300 and 1400 cars. The mileage chart between the plants and the distribution centers is given in the table below. The trucking company in charge of transporting the cars charges 8¢ per mile per car. Formulate the transportation LP to minimize transportation costs for MG Auto.

Mileage Chart

	Denver	Miami
Los Angeles	1000	2690
Detroit	1250	1350
New Orleans	1275	850

2.] Suppose that the Detroit plant capacity is 1300 cars (instead of 1500). Formulate the new LP using a dummy source.

3.] Suppose that the demand in Denver is only 1900 cars. Formulate the new LP using a dummy destination.