Transportation Model

An automobile company produces automobiles in three plants (which we will call Plant 1, Plant 2, and Plant 3) and ships them to four regions of the country (which we will call Region 1, Region 2, Region 3, and Region 4).

	Region 1	Region 2	Region 3	Region 4	Capacity
Plant 1	$131	$218	$266	$120	450
Plant 2	$250	$116	$263	$215	650
Plant 3	$178	$132	$122	$180	500
Demand	450	550	300	300	

The “capacity” column indicates the maximum number of automobiles that can be shipped to each plant. The “demand” row indicates the number of automobiles in demand at that particular region. The unit costs of shipping an automobile from each plant to each region are listed in the middle of the table (e.g., it costs $131 to ship an automobile from Plant 1 to Region 1).

The objective of this model is to find the lowest-cost shipping plan for meeting customer demands of each region without exceeding the plant capacities. Note: The demand refers to the **minimum** number of automobiles that each region should have.