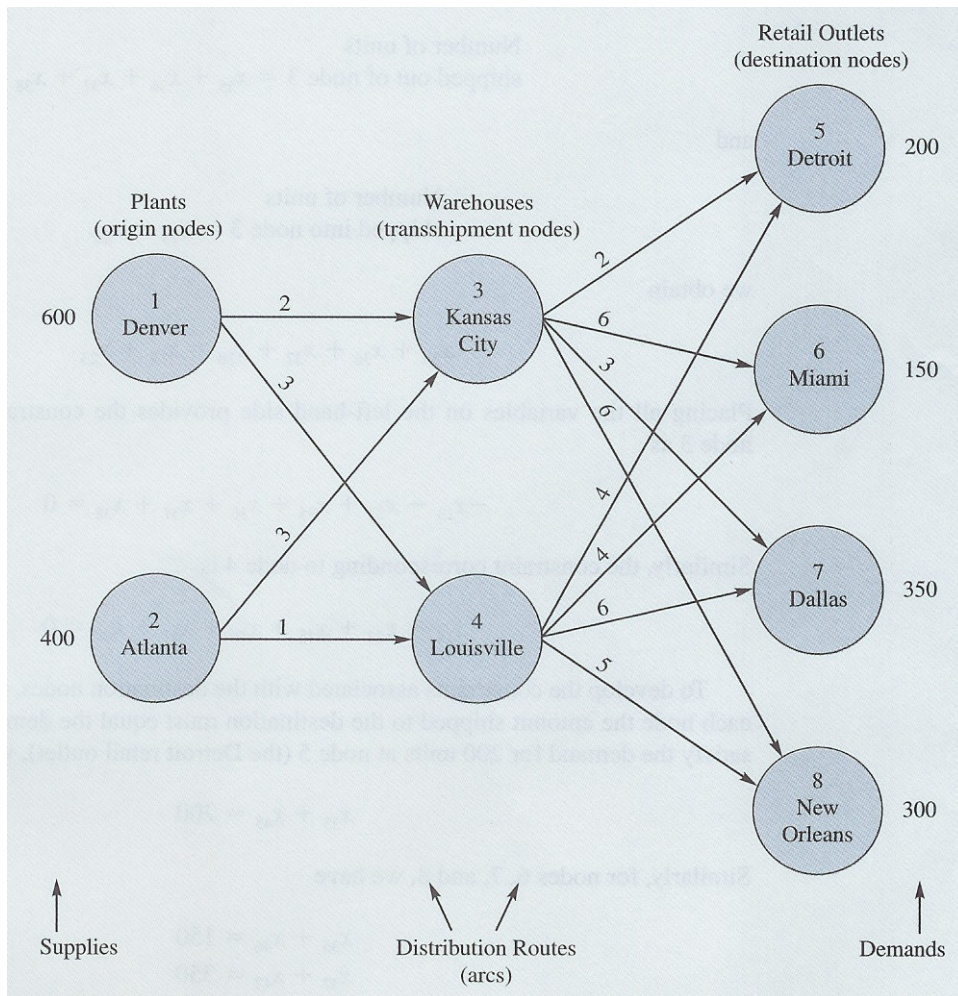


Transshipment Problem

(See Anderson, Sweeney, & Williams, *An Introduction to Management Science*, 11th Ed.)

An electronics company has production facilities in Denver and Atlanta. Components produced at either facility may be shipped to regional warehouses in either Kansas City or Louisville. From those warehouses, the firm supplies retail outlets in Detroit, Miami, Dallas, and New Orleans. The transportation cost per unit for each distribution route is shown on the arcs in the network model below. The supply at each origin and the demand at each destination are shown in the left and right margins respectively. Nodes 1 and 2 are called *origin nodes*; nodes 3 and 4 are the *transshipment nodes*; and nodes 5, 6, 7, and 8 are the *destination nodes*.



Formulate a LP model for the transshipment problem.