

Deterministic Math Models (550.251)

Quiz 3

Name Solutions

In formulating a transportation model using a balanced format in which total supply must equal total demand, indicate how to model each of the following unusual circumstances:

- A. Total quantity shipped does not equal total quantity demanded.

Create dummy supply node with
$$\text{Supply} = \text{Total demand} - \text{Total Supply}$$

- B. A certain specific route between a source and a destination cannot be used.

- Set the cost of the ^{arc}(route) = a VERY LARGE number
- set the variable for that arc equal to zero (i.e. add a constraint)