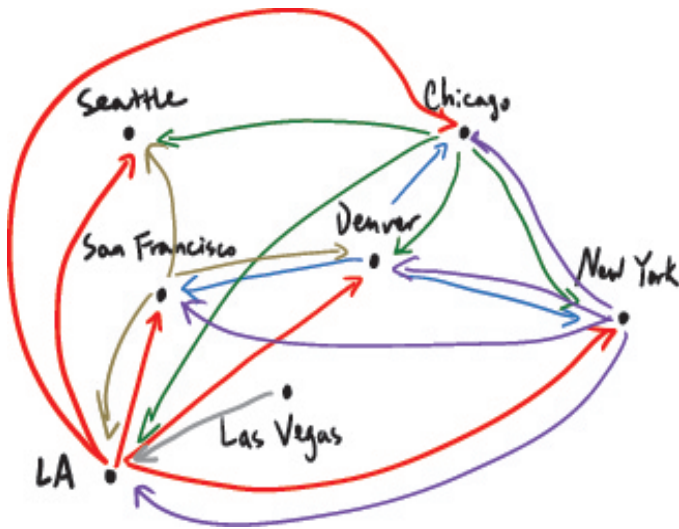


Group #: _____ Members: _____ Rating: _____

1. (4 points) Suppose *CheapNFast* have flights that originate from seven cities: Los Angeles, San Francisco, Seattle, Chicago, Denver, Las Vegas, and New York with destination cities indicated by the following graph. Assuming the rows of the matrix are ordered alphabetically by cities, find the adjacency matrix that represents the connections among the cities.



2. (5 points) Sketch a simple directed graph whose adjacency matrix is

$$\begin{bmatrix} 1 & 0 & 1 & 0 & 0 & 1 \\ 0 & 1 & 0 & 1 & 1 & 0 \\ 1 & 1 & 1 & 1 & 0 & 1 \\ 0 & 0 & 1 & 1 & 0 & 0 \\ 1 & 1 & 1 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 & 1 & 1 \end{bmatrix}. \text{ Is}$$

this matrix symmetric? Why or why not?