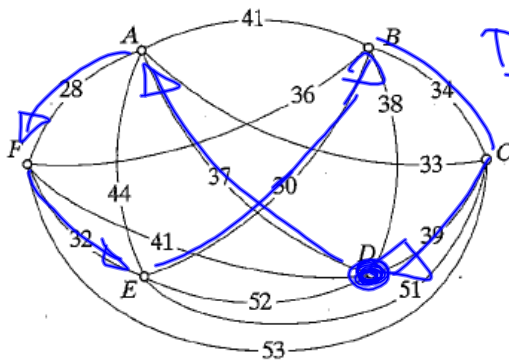


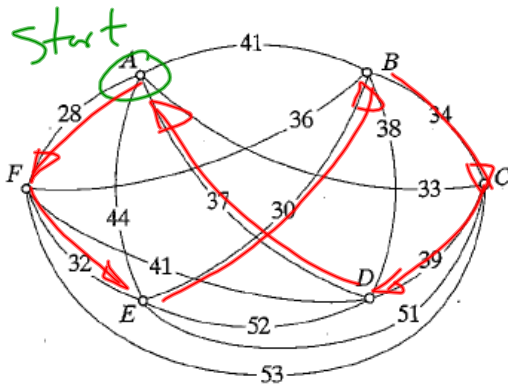
38. For the weighted graph shown in Fig. 6-45, find the repetitive nearest-neighbor tour. Write the tour using  $D$  as the starting vertex.



DAFERBCD

FIGURE 6-45

38. For the weighted graph shown in Fig. 6-45, find the repetitive nearest-neighbor tour. Write the tour using  $D$  as the starting vertex.



DAFERBCD

Same route.

FIGURE 6-45

38. For the weighted graph shown in Fig. 6-45, find the repetitive nearest-neighbor tour. Write the tour using  $D$  as the starting vertex.

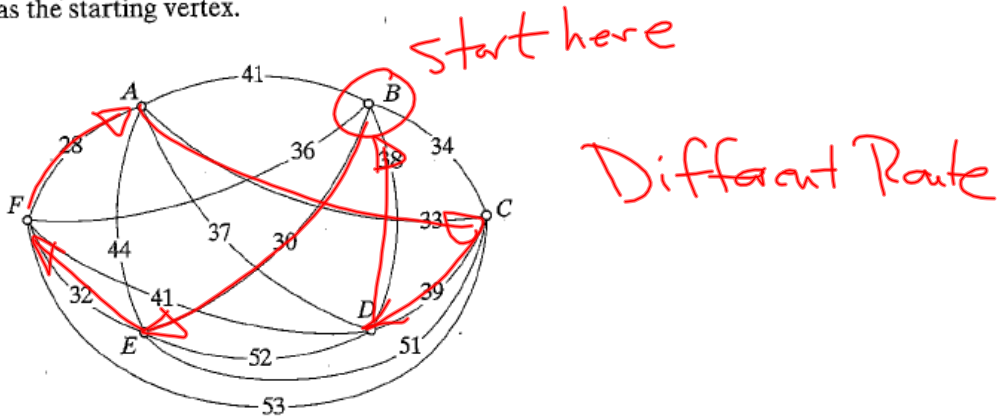


FIGURE 6-45

44. For the weighted graph shown in Fig. 6-47, find the cheapest-link tour, and give the total mileage for this tour. Write the tour using  $B$  as the starting vertex. (Note: This is the graph in Exercise 38.)

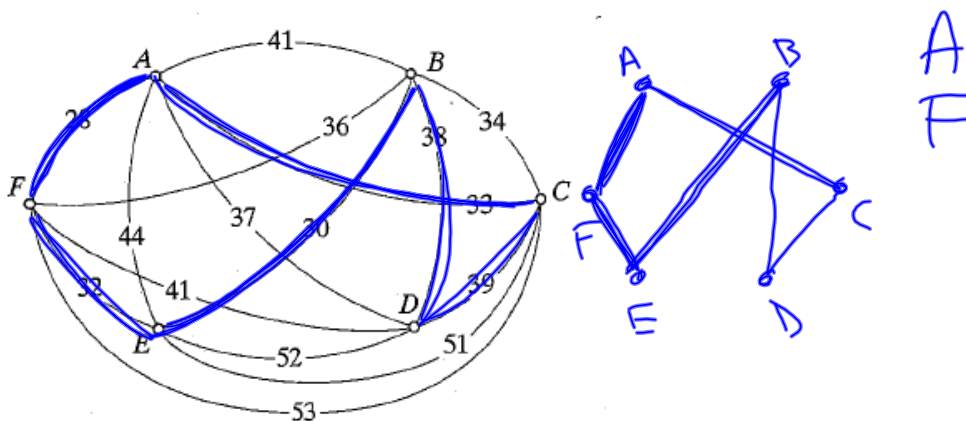


FIGURE 6-47

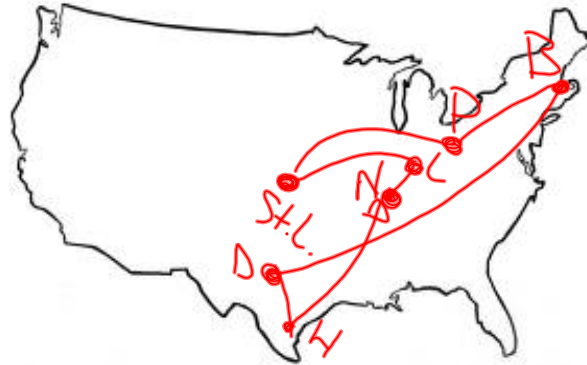
36. The Platonic Cowboys is a country western band based in Nashville. The Cowboys are planning a concert tour to the seven cities in the mileage chart shown in Fig. 6-43.

- (a) Find the nearest-neighbor tour with Nashville as the starting city. What is the total length of this tour?
- (b) Find the nearest-neighbor tour using St. Louis as the starting city. Write the tour as it would be traveled by the band, which must start and end the tour in Nashville. What is the total length of this tour?

**Mileage Chart**

	Boston	Dallas	Houston	Louisville	Nashville	Pittsburgh	St. Louis
Boston	*	1748	1804	941	1088	561	1141
Dallas	1748	*	243	819	660	1204	630
Houston	1804	243	*	928	769	1313	779
Louisville	941	819	928	*	168	388	263
Nashville	1088	660	769	168	*	553	299
Pittsburgh	561	1204	1313	388	553	*	588
St. Louis	1141	630	779	263	299	588	*

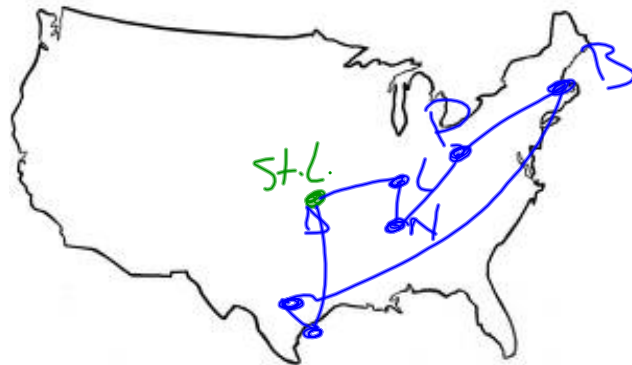
FIGURE 6-43



**Mileage Chart**

	Boston	Dallas	Houston	Louisville	Nashville	Pittsburgh	St. Louis
Boston	*	1748	1804	941	1088	561	1141
Dallas	1748	*	243	819	660	1204	630
Houston	1804	243	*	928	769	1313	779
Louisville	941	819	928	*	168	388	263
Nashville	1088	660	769	168	*	553	299
Pittsburgh	561	1204	1313	388	553	*	588
St. Louis	1141	630	779	263	299	588	*

FIGURE 6-43



48. For the Platonic Cowboys concert tour discussed in Exercise 36, find the cheapest-link tour, and give the total mileage for this tour.

Mileage Chart

	Boston	Dallas	Houston	Louisville	Nashville	Pittsburgh	St. Louis
Boston	*	1748	1804	941	1088	561	1141
Dallas	1748	*	243	819	660	1204	630
Houston	1804	243	*	928	769	1313	779
Louisville	941	819	928	*	168	388	263
Nashville	1088	660	769	168	*	553	289
Pittsburgh	561	1204	1313	388	553	*	588
St. Louis	1141	630	779	263	289	588	*

FIGURE 6-43

