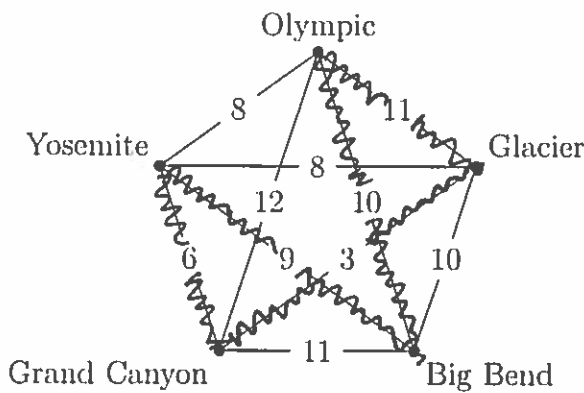


Name Solns.

- Show sufficient work to justify each answer.
- You have 15 minutes for this quiz.

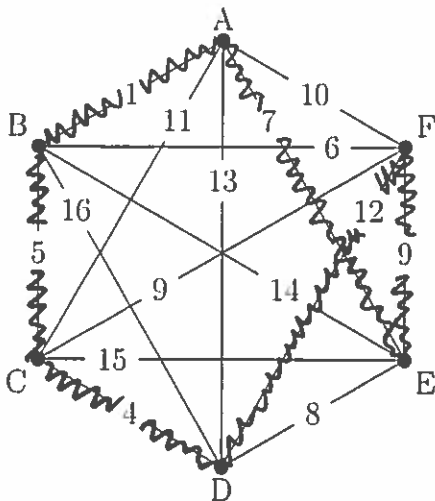
1. (3 points) Use the nearest-neighbor algorithm to find a Hamiltonian circuit starting at Big Bend in the graph below. What is the cost of the circuit you found?



$$B \overset{9}{\rightarrow} Y \overset{6}{\rightarrow} G \overset{3}{\rightarrow} O \overset{11}{\rightarrow} B$$

$$\begin{aligned} \text{Cost} &= 9 + 6 + 3 + 11 + 10 \\ &= 39 \end{aligned}$$

2. (3 points) Use the sorted-edges algorithm to find a Hamiltonian circuit starting at A in the graph below.



Edge costs in increasing order

- 1
- 4
- 5
- 6
- 7
- 8
- 9
- 9
- 10

- A
- 12
- 13
- 14
- 15
- 16

A-B-C-D-F-E-A