

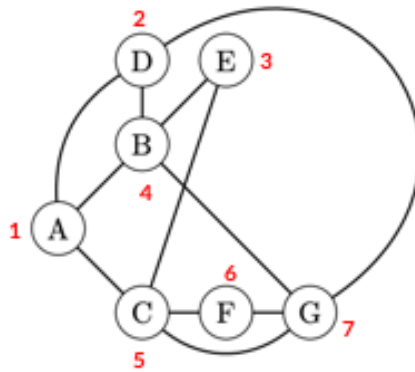
# Worksheet 19 Solution

Hyungmo Gu

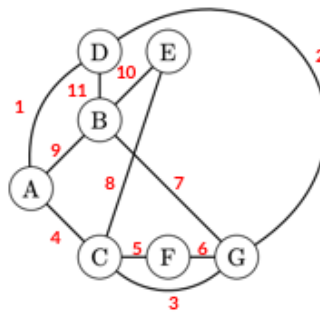
April 6, 2020

## Question 1

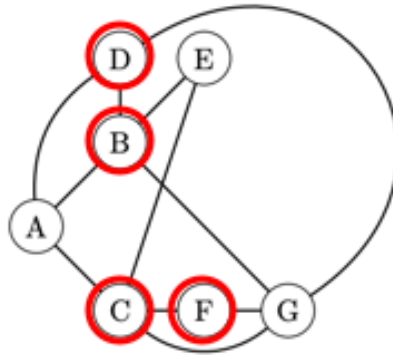
- a. By the figure below, we can conclude there are 7 vertices.



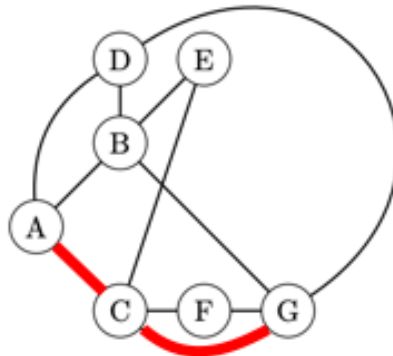
- b. By the figure below, we can conclude there are 11 edges.



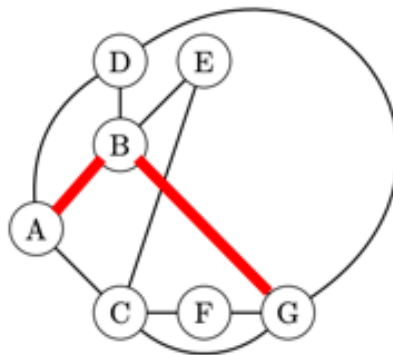
c. By the figure below, we can conclude there are 4 vertices adjacent to G.



d. By the figure below, we can conclude the distance between A and G is 2.

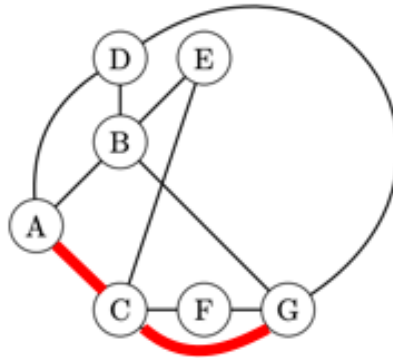


There are 2 shortest paths between A and G. One is the path from A to C to G as shown above, and the other is the path from A to B to G

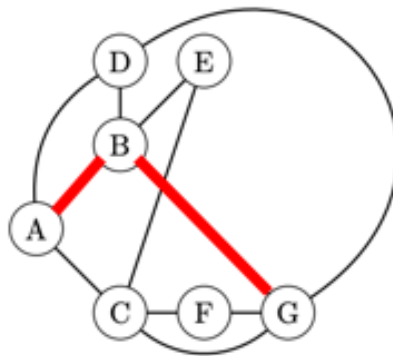


**Correct Solution:**

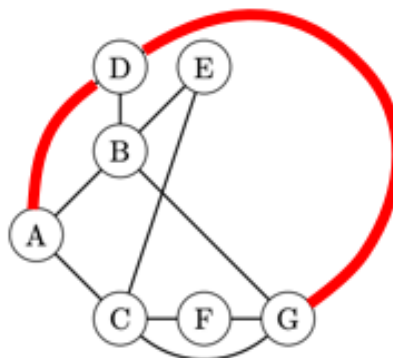
By the figure below, we can conclude the distance between A and G is 2.



There are 3 shortest paths between A and G. One is the path from A to C to G as shown above, and the other is the path from A to B to G



and the last one is from A to D to G



**Question 2**

**Question 3**