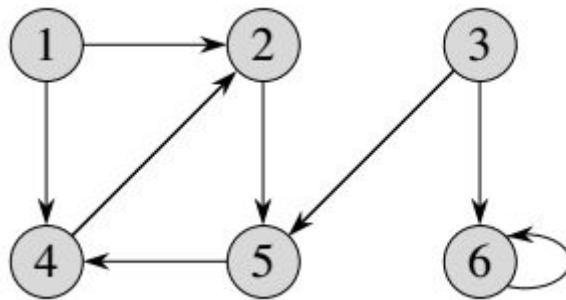
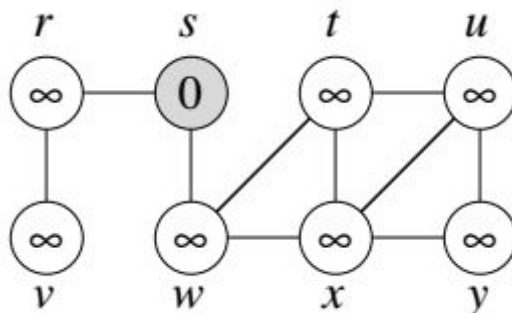

Practice Set 8

Programming

- A. The class **ListGraph** is an implementation of a graph using an adjacency list. This class is tested by representing the graph in CLRS.



Using this implementation, create a new graph representing the graph in Figure 22.3 CLRS. Then, print the shortest path from vertex s to y .



- B. Implement a method to print the attributes (distance, predecessor, ...) of every vertex in table form.
- C. Create a new class **MatrixGraph** to implement a graph using an adjacency matrix. Reimplement all methods properly, including the breadth-first search. Test using the previous examples to make sure that the implementation is correct.
- D. Implement a depth-first search method for both the **ListGraph** and **MatrixGraph** classes. This will require adding more attributes to the **Vertex** class.

CLRS Exercises

- 22.2-1
- 22.2-2
- 22.3-2