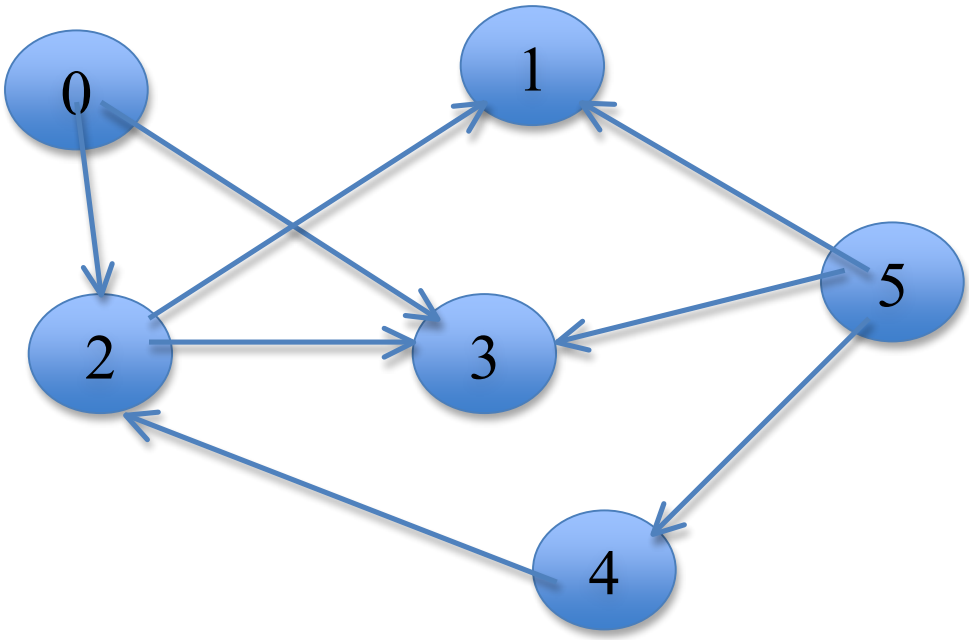
# CSY2006

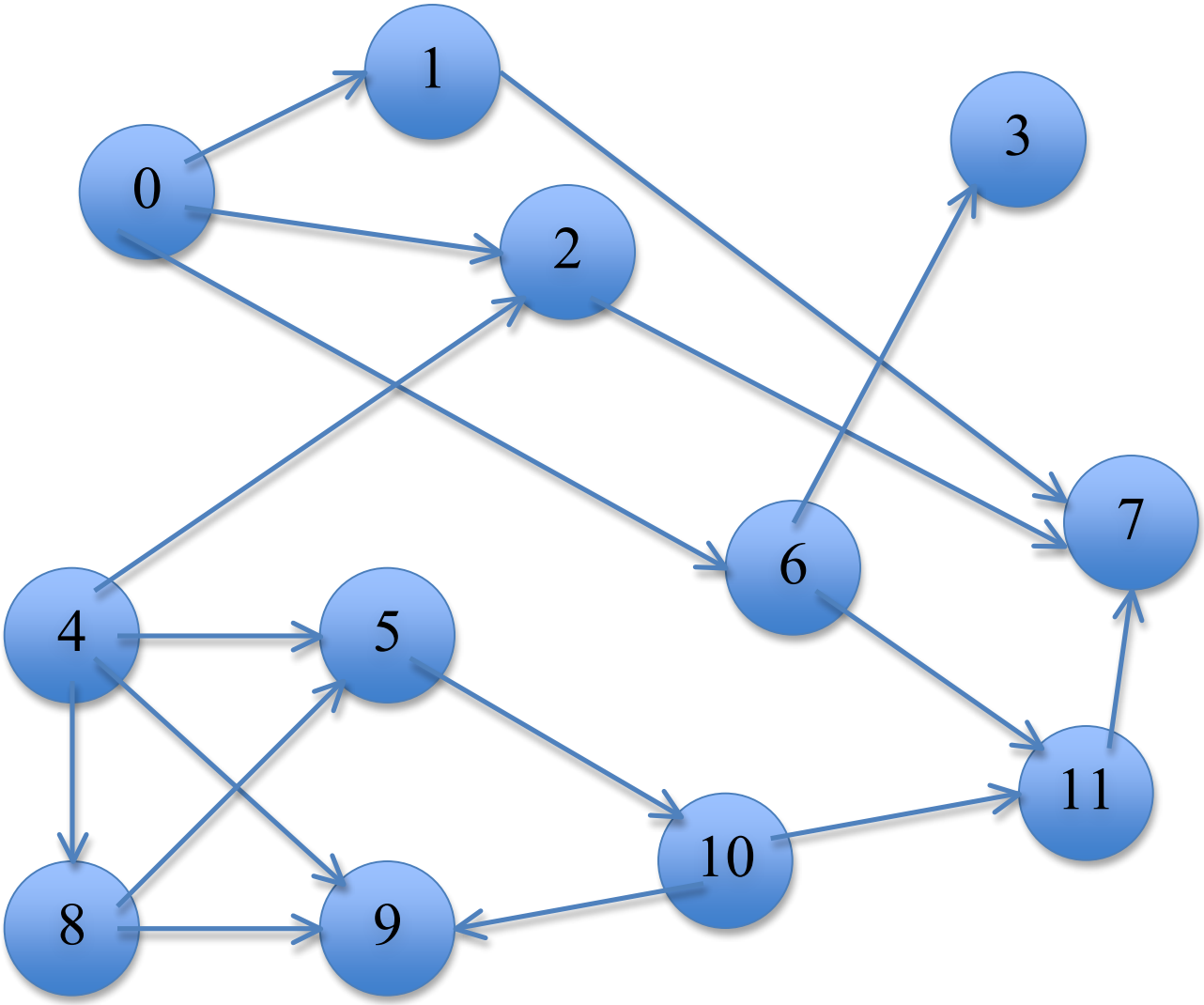
## Graph Exercises:

1. Consider the graph below:



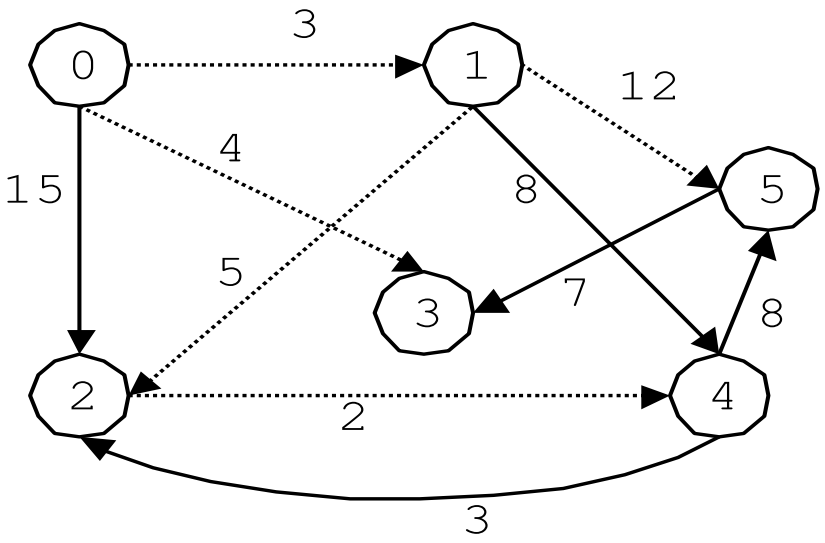

(a) Find the adjacency matrix
(b) Draw adjacency list
(c) List nodes in depth first traversal (ascending order)
(d) List nodes in breadth first traversal (ascending order)

2. Consider the graph below:




a) List nodes in depth first traversal (ascending order)
b) List nodes in breadth first traversal (ascending order)

3. Consider the graph below. Find the shortest distance from node 0 to every other node in the graph.




4. Try more exercises from links below by creating new graphs:

   https://www.cs.usfca.edu/~galles/visualization/BFS.html

   https://www.cs.usfca.edu/~galles/visualization/DFS.html

   https://www.cs.usfca.edu/~galles/visualization/Dijkstra.html

   http://www.ee.ryerson.ca/~courses/coe428/graphs/dijkstra.html

## Lab Exercises:

1. Write a program that outputs the nodes of a graph in a depth first traversal.

2. Write a program that outputs the nodes of a graph in a breadth first traversal.

3. Write a program that outputs the shortest distance from a given node to every other node in the graph.