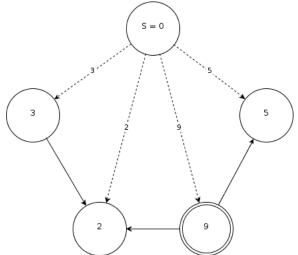
# CSCD320 Homework 9, Winter 2012, Eastern Washington University. Cheney, Washington.

Name: Eric Fode

### EWU ID:00530214

# **Solution for Problem 1**

In this case no more then the first node will have to be explored to find the shortest path.



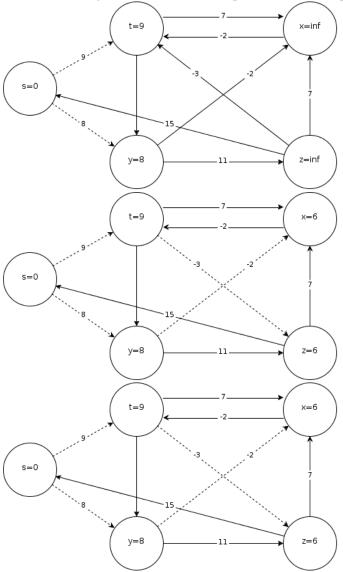
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### **Solution for Problem 2**

Three sets of edge relaxation will be required to find the optimum paths.



#### Solution to problem 3

Use Warshall's algorithm.

- 1. Copy the adjacency matrix into another matrix called path.
- 2. Find in path every for every vertex the incoming and outgoing edges.
- 3. For every pair of edges associated with a vertex that is found put a 1 in the path matrix.
- 4. The transitive closure is trivial to extract from the path matrix.