Cse332, Worksheet 6: Graphs

1. Using the following graph, execution the following algorithms. When evaluating edges, consider them in alphabetical order:
   1. Topological sort: show work and the resulting order
   2. Breadth-first search: start at ‘a’, and write the order visited
   3. Depth-first search: start at ‘a’, and write the order visited
   4. In the previous graph, why would Topological sort fail if an edge from ‘h’ to ‘d’ were added?
   5. Assuming we just want to traverse a graph, in any order, are there cases where Depth-first-search will fail to find a valid solution yet Breadth-first-search will succeed (Hint: yes). When?