APM 4663/5663—Fall 2024
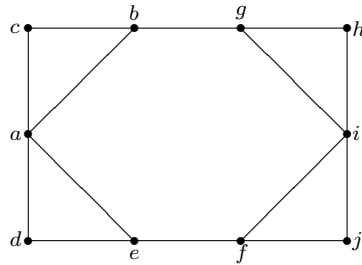## Small Assignment #3
Due date: Tuesday, October 22, 2024

Instructions: Solve the problem below. Upload your solution to Moodle.

1. Consider the following graph:

   (a) (5 pts.) Use Depth-First Search to find a spanning tree in the graph above starting from vertex c (!!). When you have a choice, choose the vertex whose label is earlier in the alphabet. Draw the resulting search tree, show stack, redraw stack each time you remove and add a vertex.

   (b) (5 pts.) Use Breadth-First Search to find a spanning tree in the graph above starting from vertex c (!!). When you have a choice, choose the vertex whose label is earlier in the alphabet. Draw the resulting search tree, show queue, indicate parents in the queue.