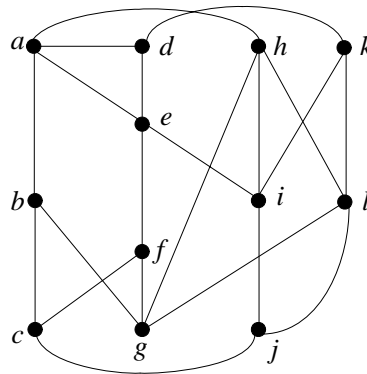
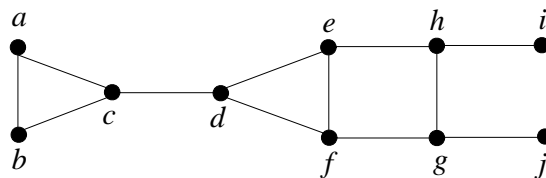


1. How many edges must be removed from a connected graph with n vertices and m edges to produce a spanning tree?
2. Find a spanning tree for the graph shown by removing edges in simple circuits.



3. Use a depth-first search to produce a spanning tree for the given simple graph. Choose a as the root of this spanning tree and assume that the vertices are ordered alphabetically.



4. Use a breadth-first search to produce a spanning tree for each of the simple graphs. Choose a as the root of each spanning tree.

