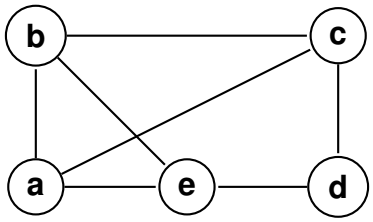
10.5 Euler and Hamilton Paths

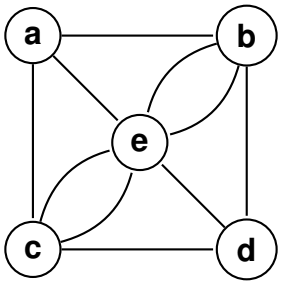
10.5 pg. 703 # 1

Determine whether the given graph has an Euler circuit. Construct such a circuit when one exists. If no Euler circuit exists, determine whether the graph has an Euler path and construct such a path if one exists.



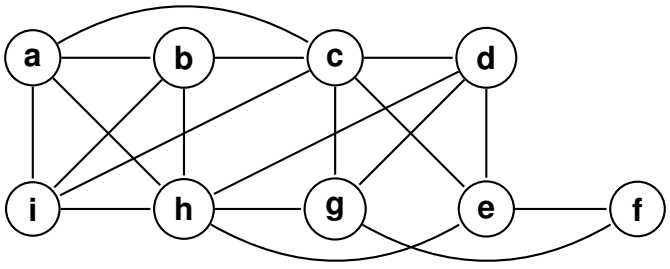
10.5 pg. 703 # 3

Determine whether the given graph has an Euler circuit. Construct such a circuit when one exists. If no Euler circuit exists, determine whether the graph has an Euler path and construct such a path if one exists.



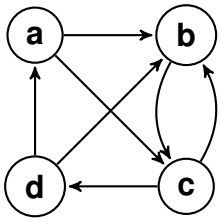
10.5 pg. 704 # 7

Determine whether the given graph has an Euler circuit. Construct such a circuit when one exists. If no Euler circuit exists, determine whether the graph has an Euler path and construct such a path if one exists.



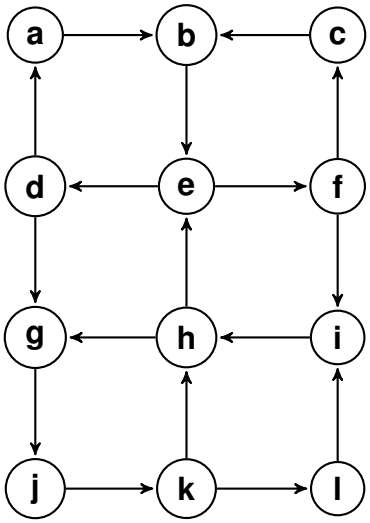
10.5 pg. 703 # 19

Determine whether the given graph has an Euler circuit. Construct such a circuit when one exists. If no Euler circuit exists, determine whether the graph has an Euler path and construct such a path if one exists.



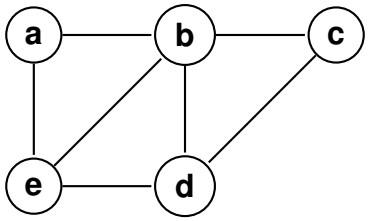
10.5 pg. 703 # 23

Determine whether the given graph has an Euler circuit. Construct such a circuit when one exists. If no Euler circuit exists, determine whether the graph has an Euler path and construct such a path if one exists.



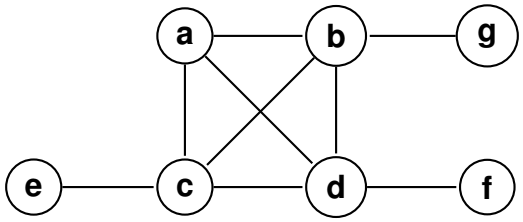
10.5 pg. 705 # 31

Determine whether the given graph has an Hamilton circuit. If it does, find such a circuit. It it does not, give an argument to show why no such circuit exists.



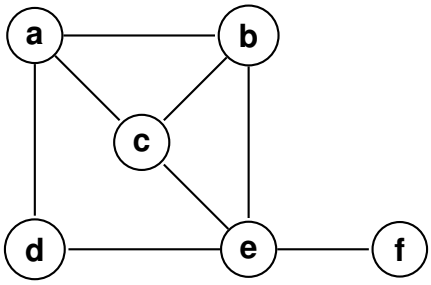
10.5 pg. 705 # 33

Determine whether the given graph has an Hamilton circuit. If it does, find such a circuit. It it does not, give an argument to show why no such circuit exists.



10.5 pg. 706 # 39

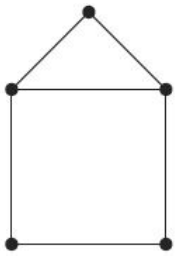
Determine whether the given graph has an Hamilton path. If it does, find such a path. It it does not, give an argument to show why no such path exists.



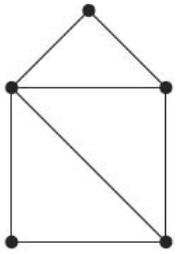
10.5 pg. 706 # 47

For each of these graphs, determine (i) whether Dirac's theorem can be used to show that the graph has a Hamilton circuit,(ii) whether Ore's theorem can be used to show that the graph has a Hamilton circuit, and (iii) whether the graph has a Hamilton circuit.

a)



b)



c)