Graphs

Eulerian

By the end of this video you will be able to…

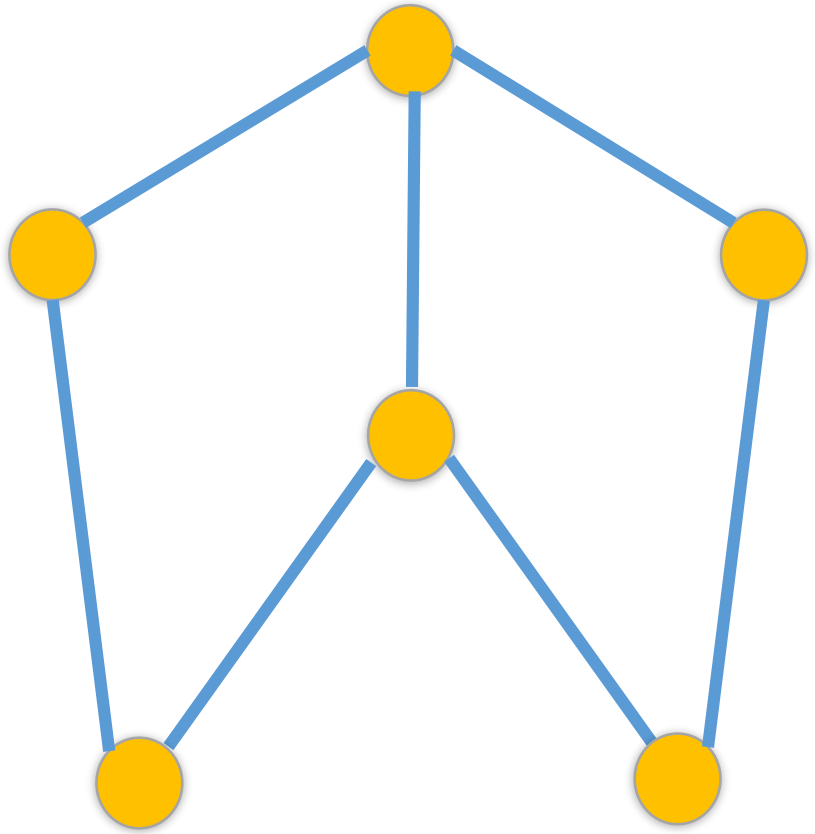
- Define an Eulerian circuit in a graph.
- Determine, for small exampes, whether a graph is Eulerian.
- Describe an algorithm deciding whether a graph is Eulerian.
- Discuss the efficiency of this algorithm.

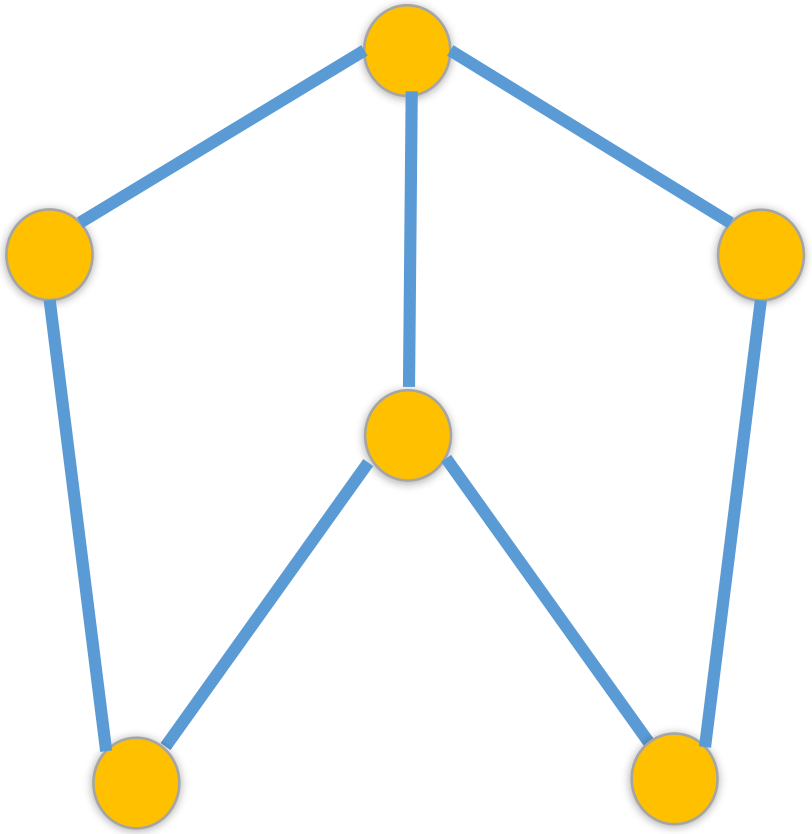
A graph is Hamiltonian if there is a path through the graph which visits each vertex exactly once.

Eulerian

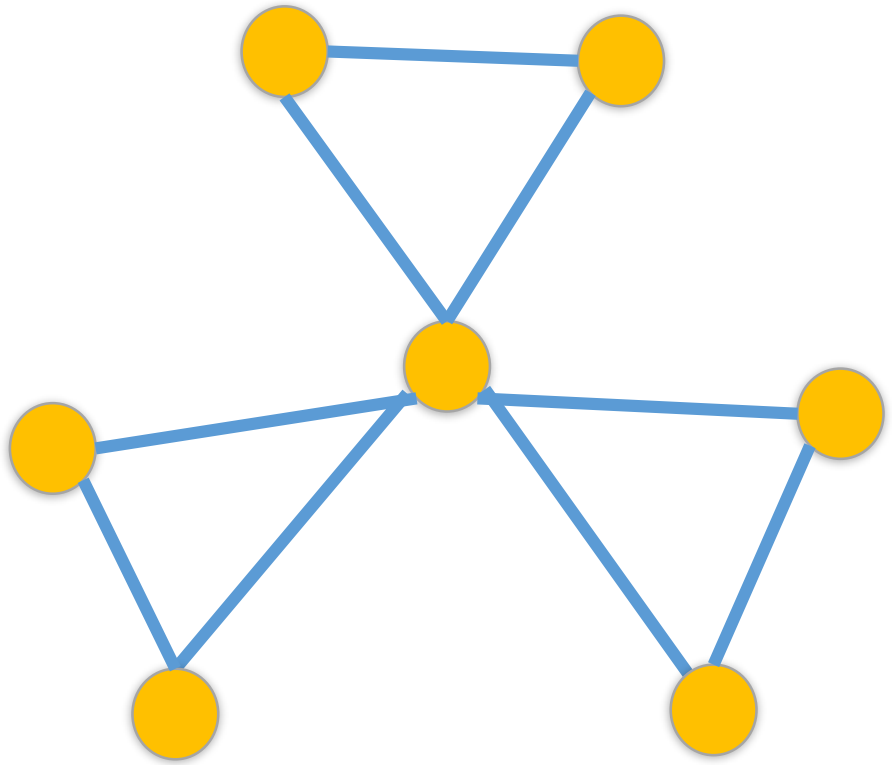
A graph is ~~Hamiltonian~~ if there is a path through the graph which visits each ~~vertex~~ exactly once.

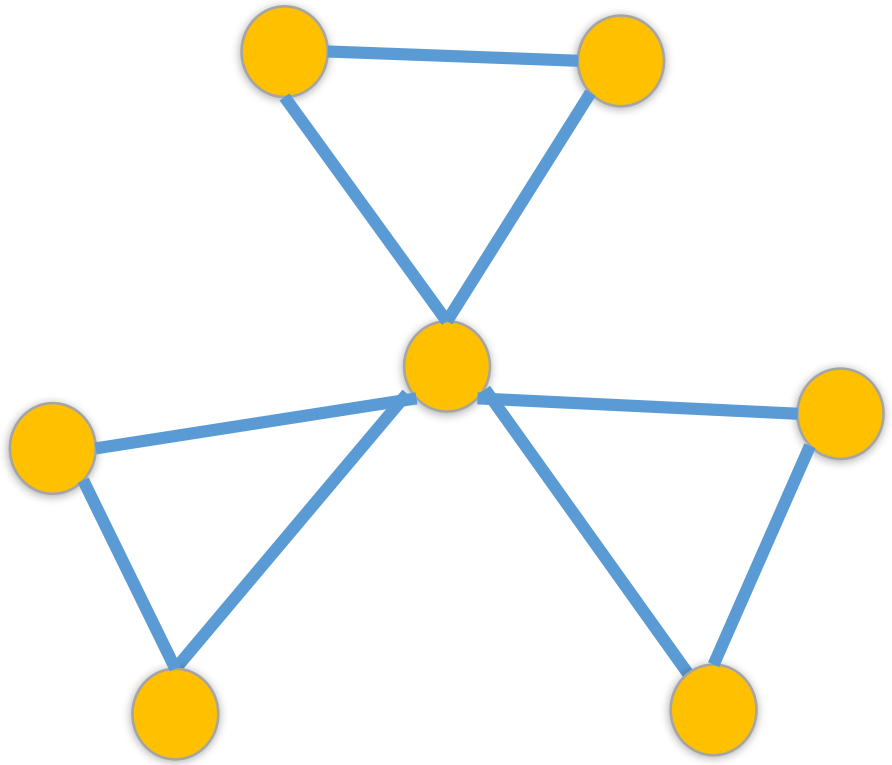
edge



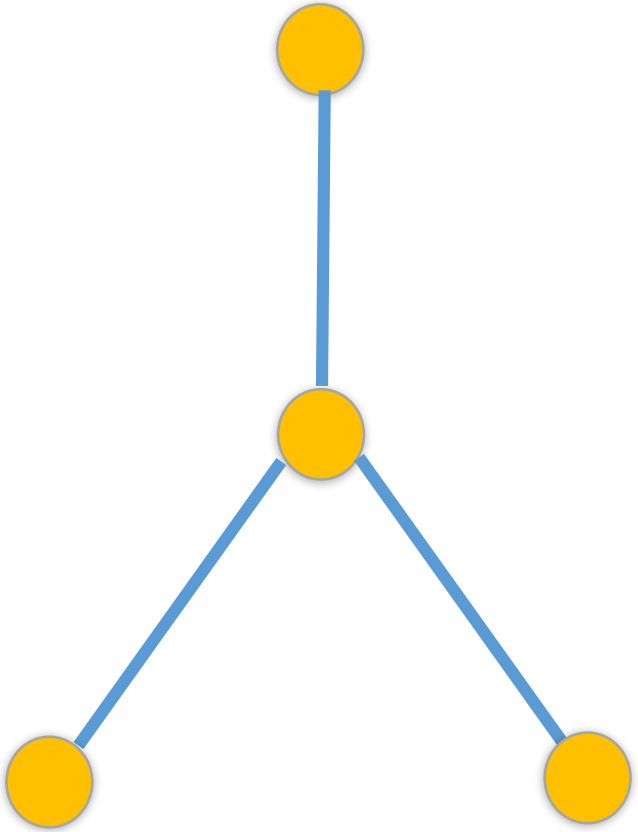


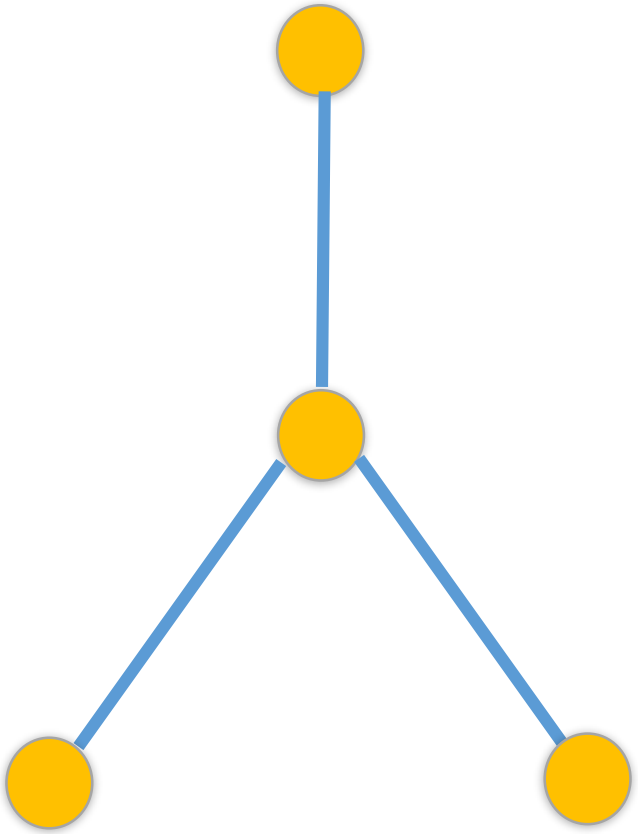
Eulerian
(and Hamiltonian)



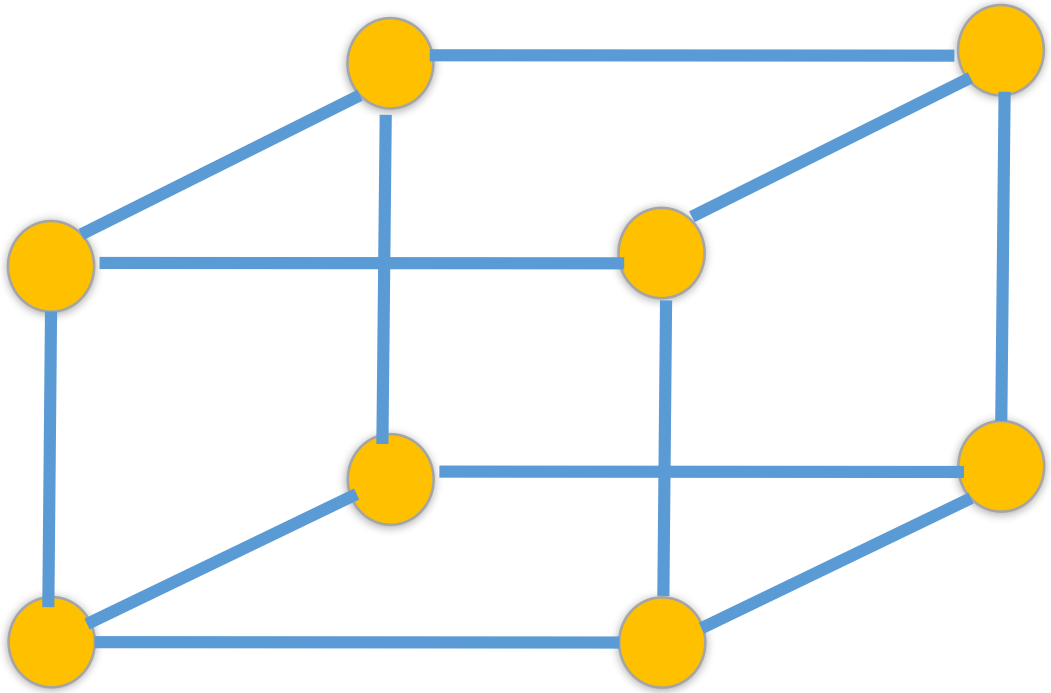


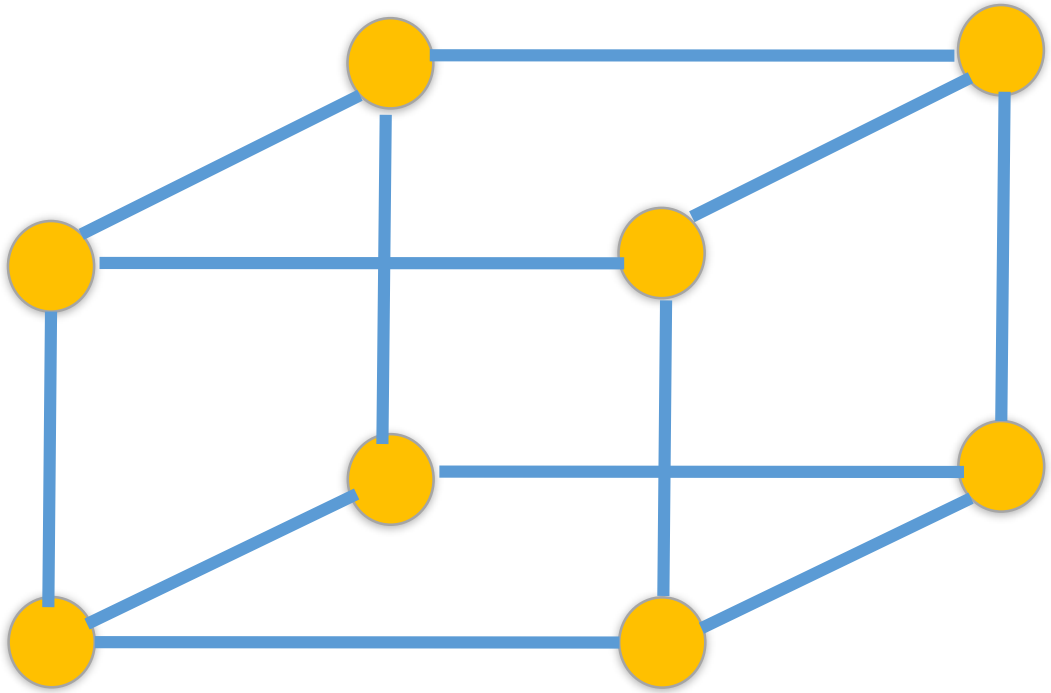
Eulerian (but not Hamiltonian)





Not Eulerian (and not Hamiltonian)





Not Eulerian
(but Hamiltonian)