

Graphs



Eulerian



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by Christine Alvarado, Mia Minnes, and Leo Porter, 2015.

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

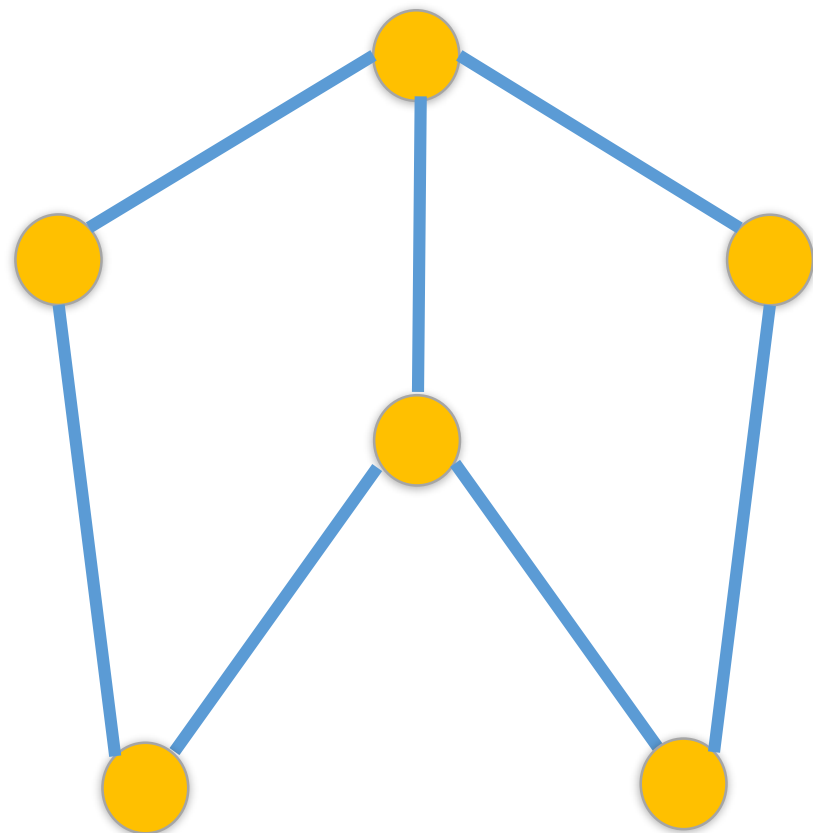
- Define an Eulerian circuit in a graph.
- Determine, for small examples, whether a graph is Eulerian.
- Describe an algorithm deciding whether a graph is Eulerian.
- Discuss the efficiency of this algorithm.

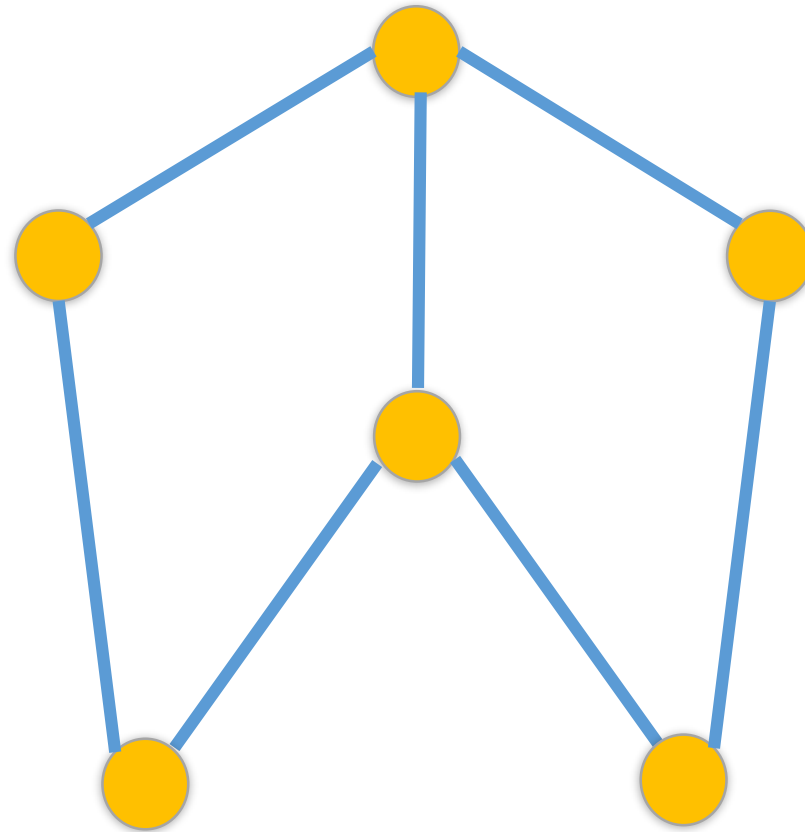
A graph is Hamiltonian if there is a path through the graph which visits each vertex exactly once.

Eulerian

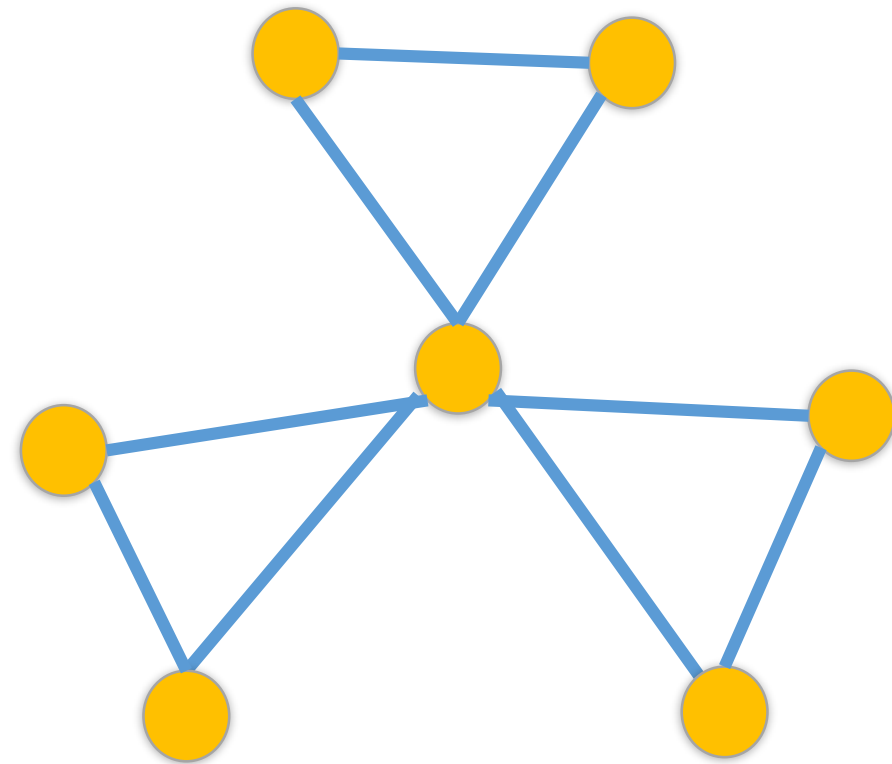
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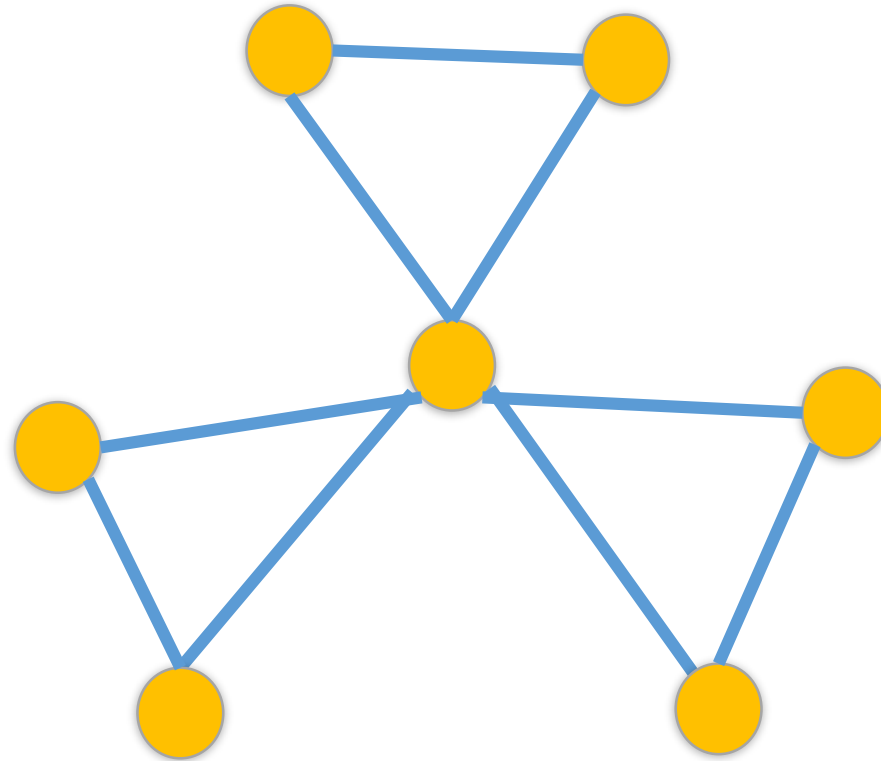
edge



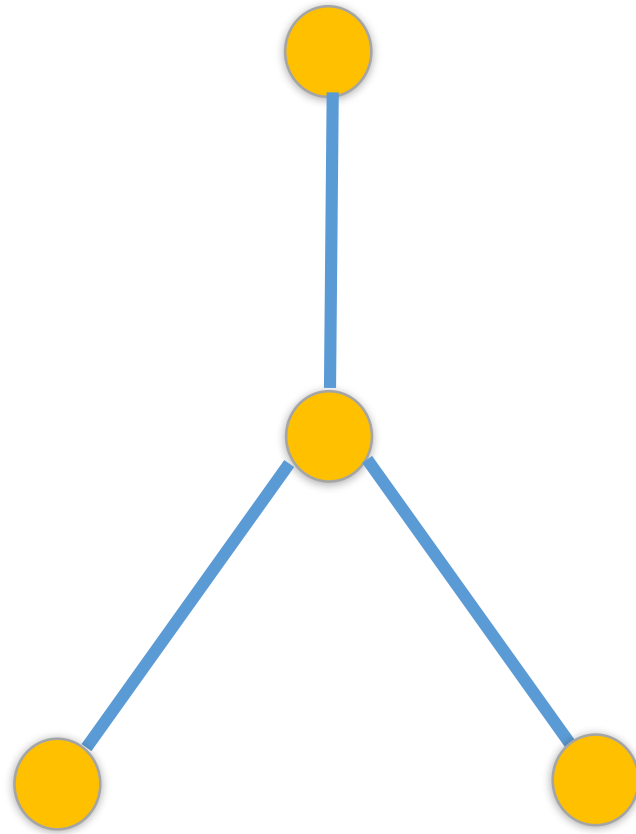


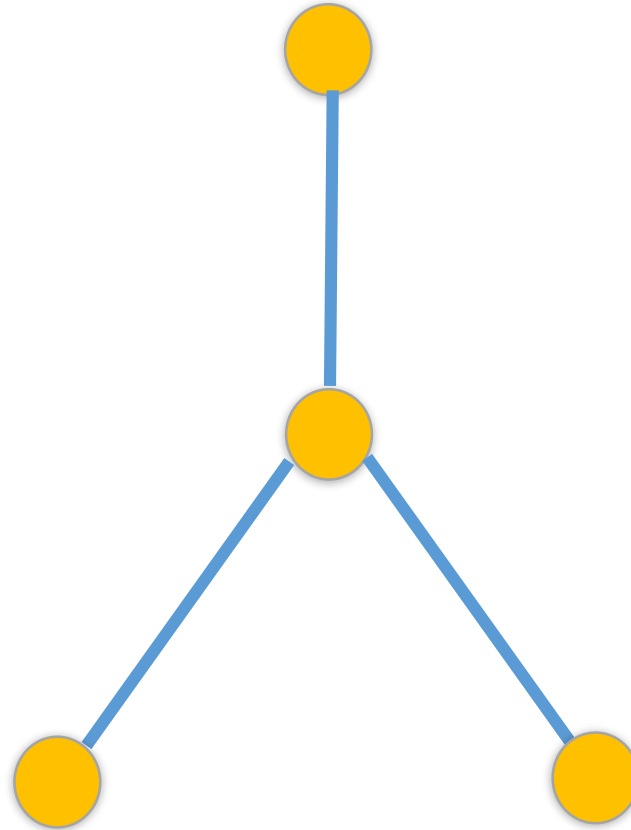
**Eulerian
(and Hamiltonian)**



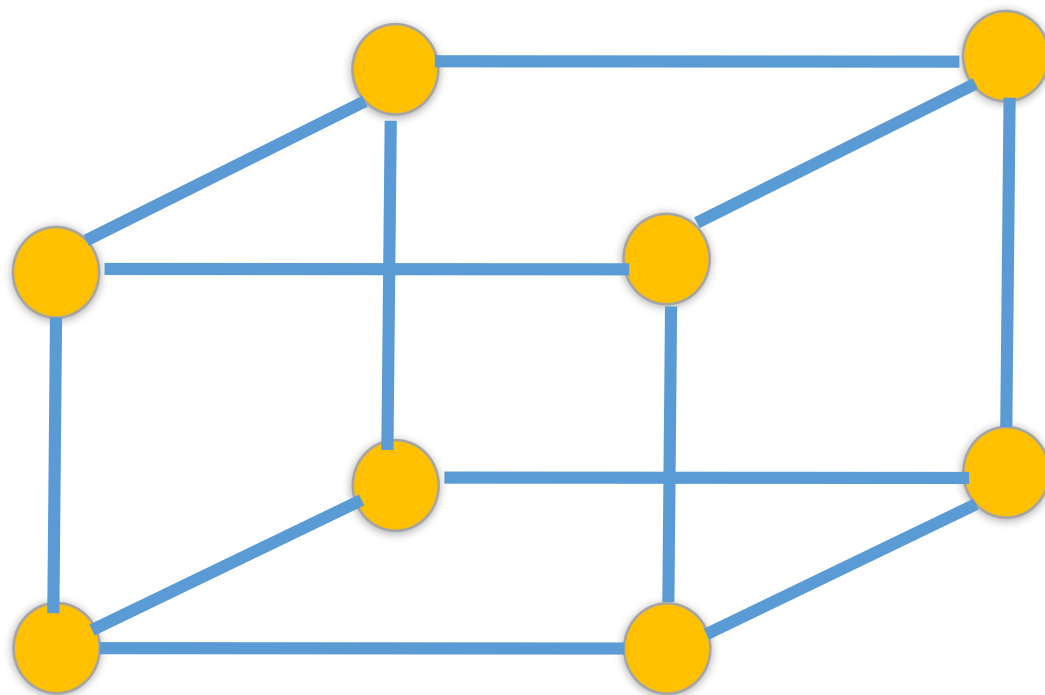


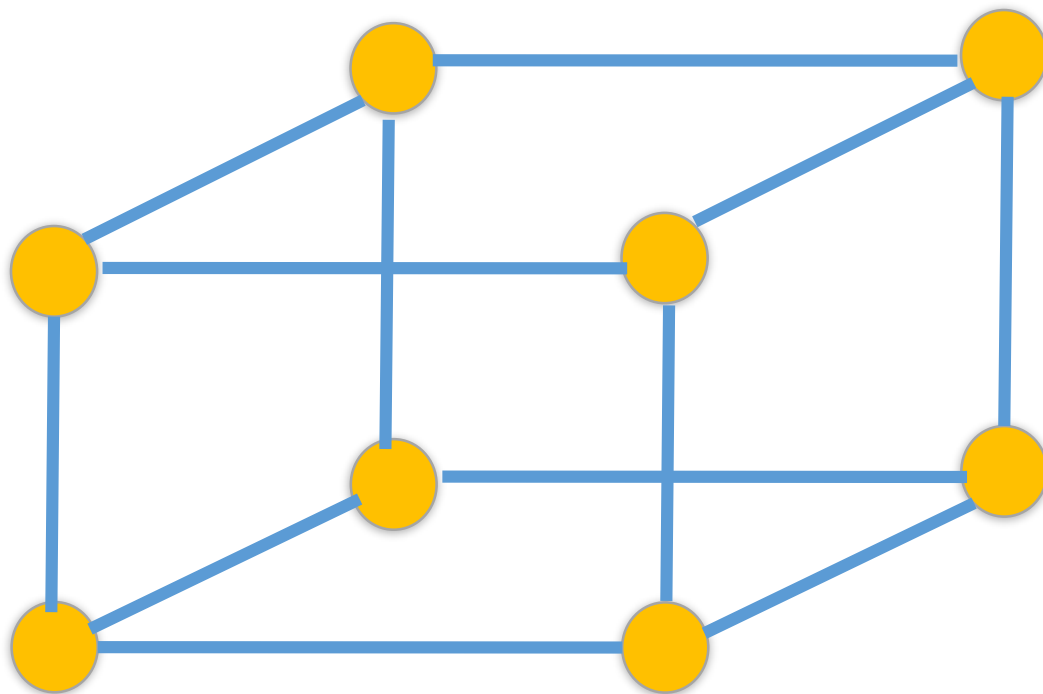
**Eulerian
(but
not Hamiltonian)**





**Not Eulerian
(and
not Hamiltonian)**





**Not Eulerian
(but Hamiltonian)**