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Theory of Computability

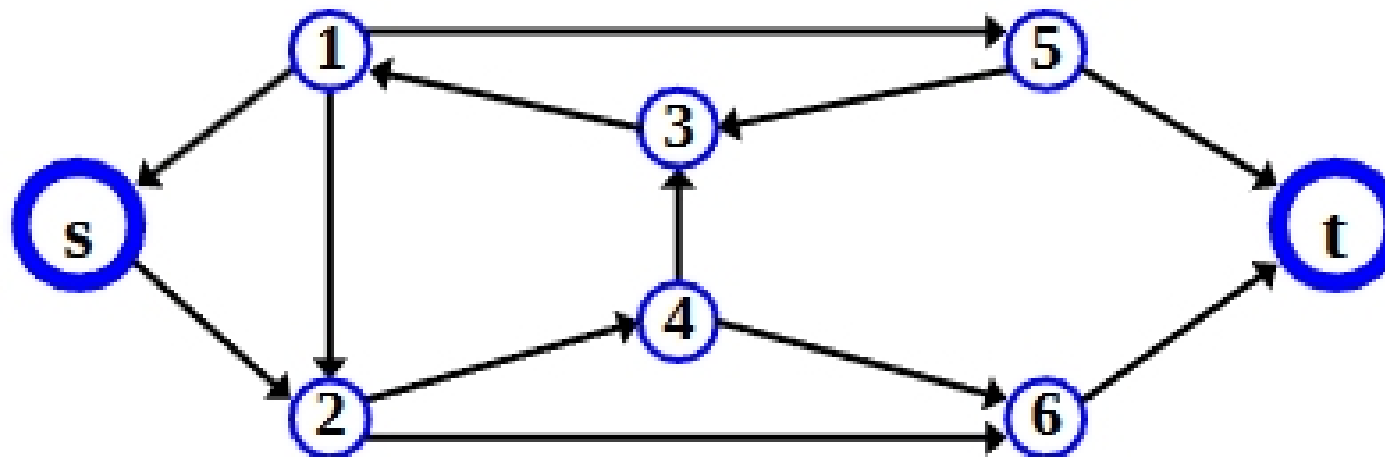
The class NP

Section 7.3

The HAMPATH problem

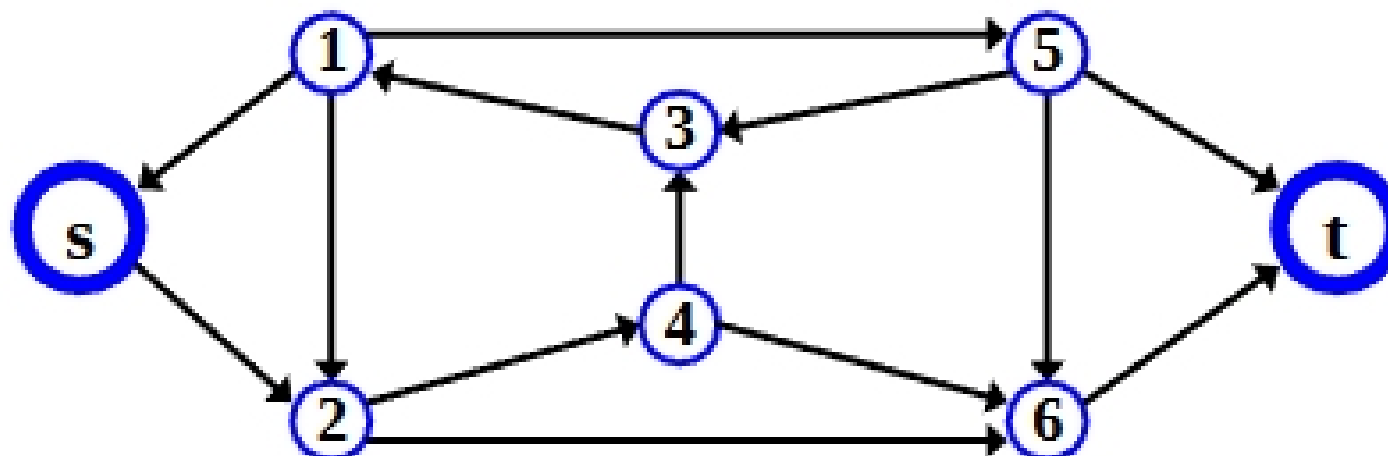
A **Hamiltonian path** in a directed graph G is a directed path that goes through each node exactly once. We consider a special case of this problem where the start node and target node are fixed.

$\text{HAMPATH} = \{ \langle G, s, t \rangle \mid G \text{ is a directed graph with a Hamiltonian path from } s \text{ to } t \}$



$\in \text{PATH?}$

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Polynomial verifiability

Does this graph have a Hamiltonian path?

