Summary: Lecture 8

Summary for the chapters 9.3 and 9.4. [1]

Title

Content

IndependentSet

${\bf Independent Set}$

INDEPENDENTSET

Input: An undirected Graph G and a number k.

Question: Is there a set of k nodes with no edges in between? (INDEPENDENTSET)

INDEPENDENTSET is NP-complete.

Proof idea:

• triangle construction

HamiltonPath is NP-complete

HAMILTONPATH is NP-complete.

Proof idea:

- Another reduction from 3SAT
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TODO

Questions:

References

[1] Christos H. Papadimitriou. Computational Complexity. Addison-Wesley Publishing Company, 1994.