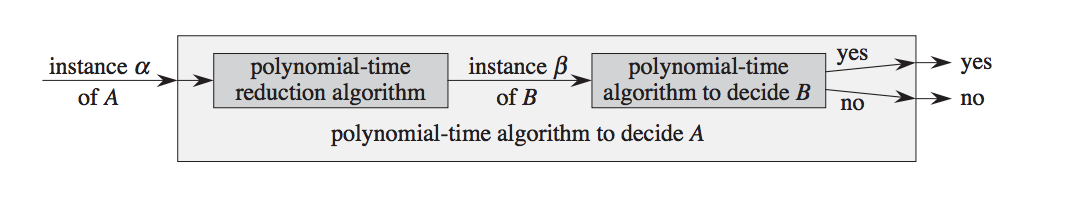
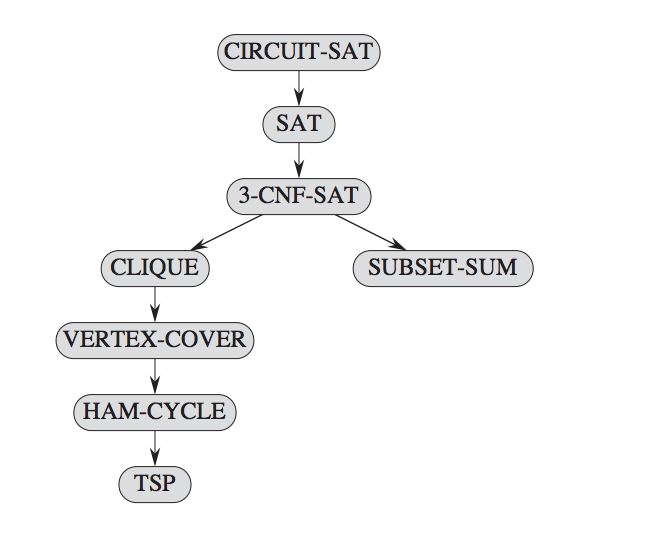
NP-complete:

1, decision problem (0-1):

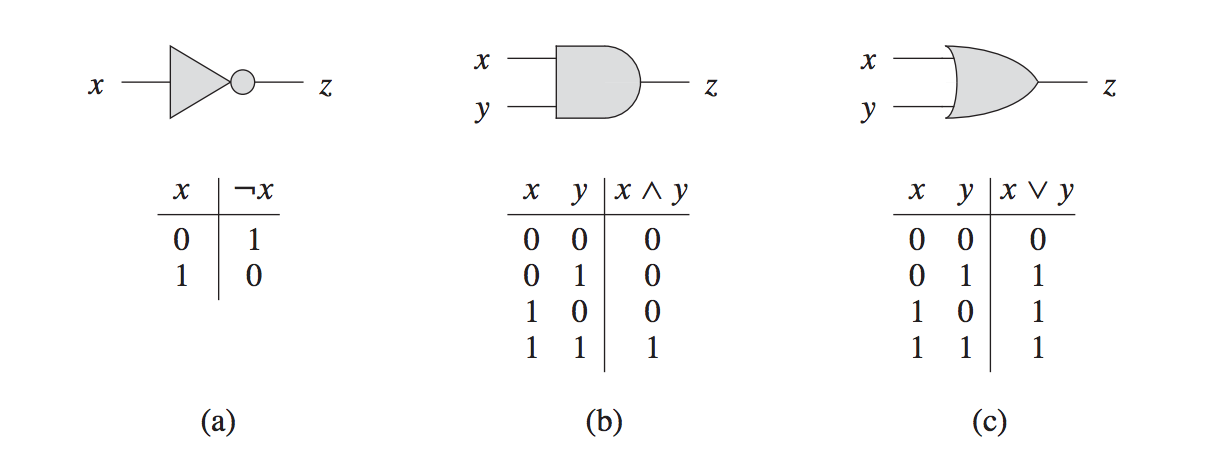
2, given a directed graph G, vertices u and , and an integer k, does a path exist from u to consisting of at most k edges?

Reduction:

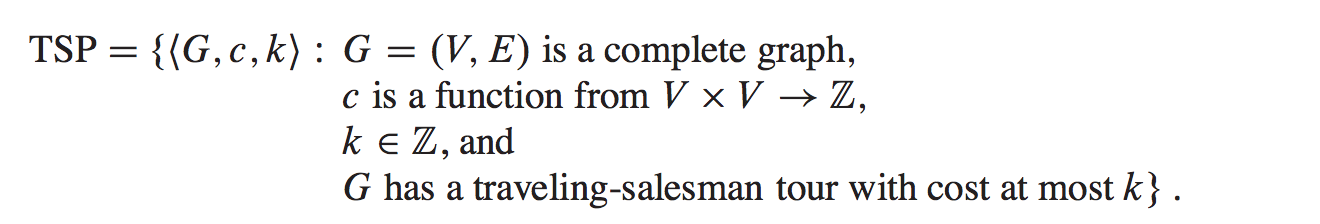


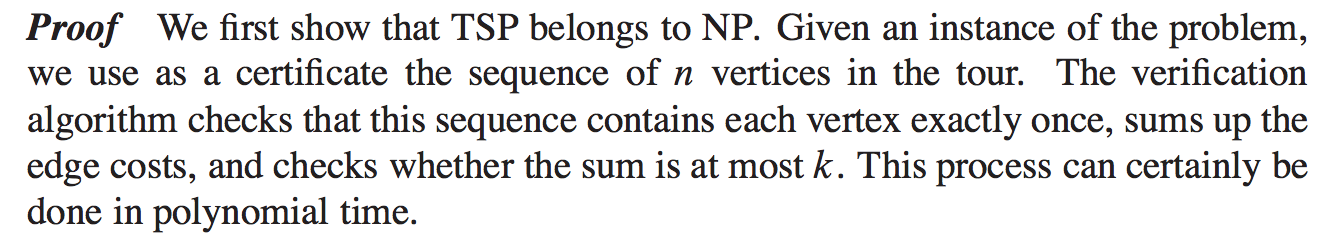
reduction tree:  


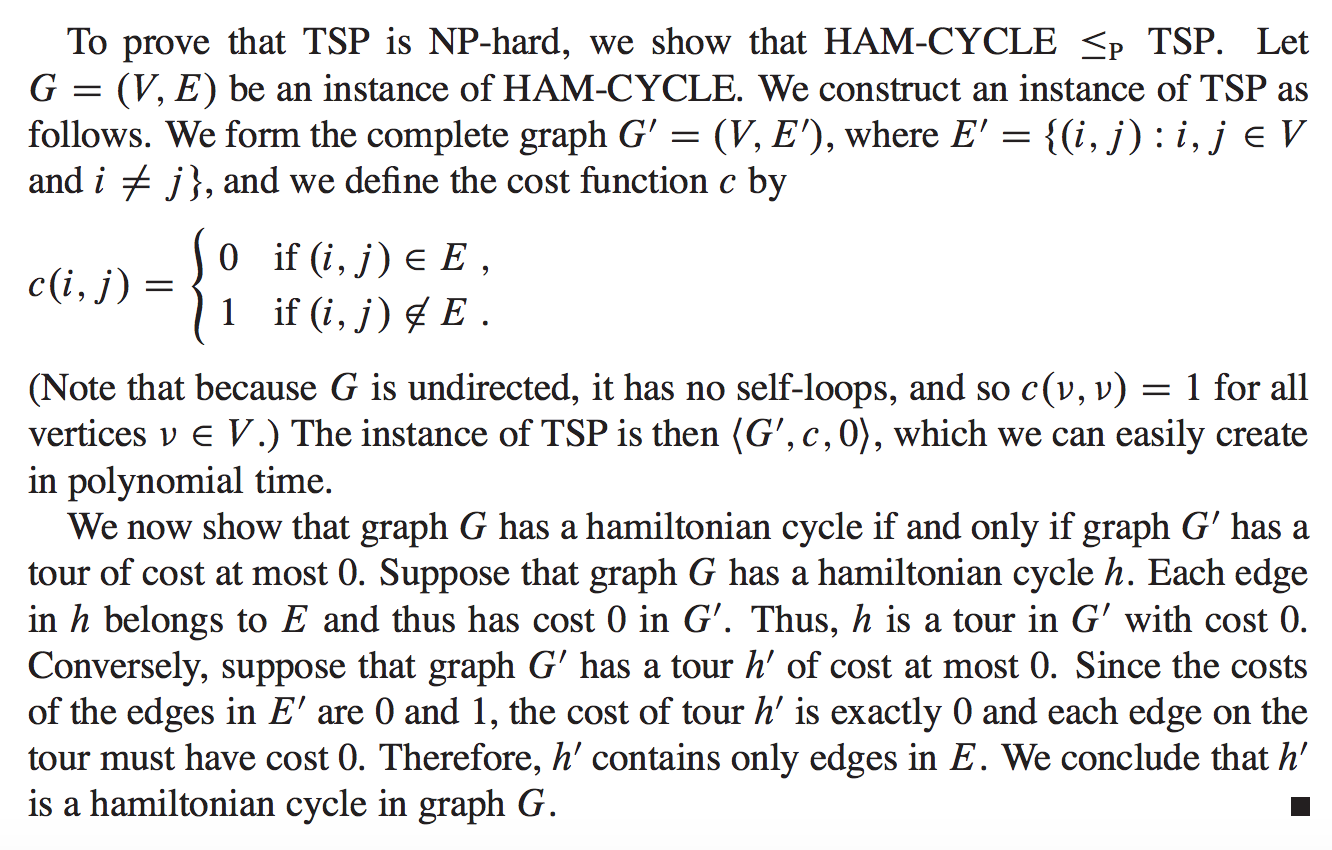
circuit-sat:



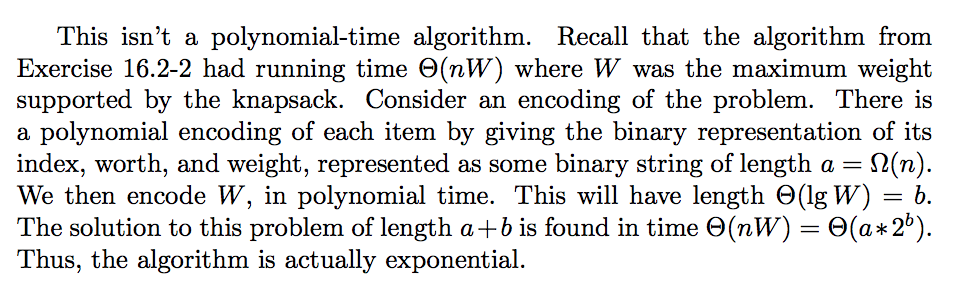
TSP: formal language:

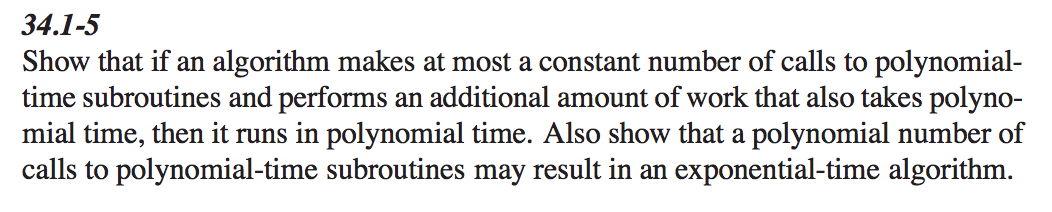


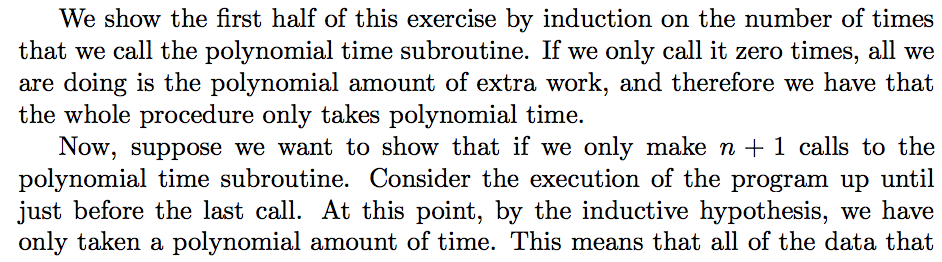


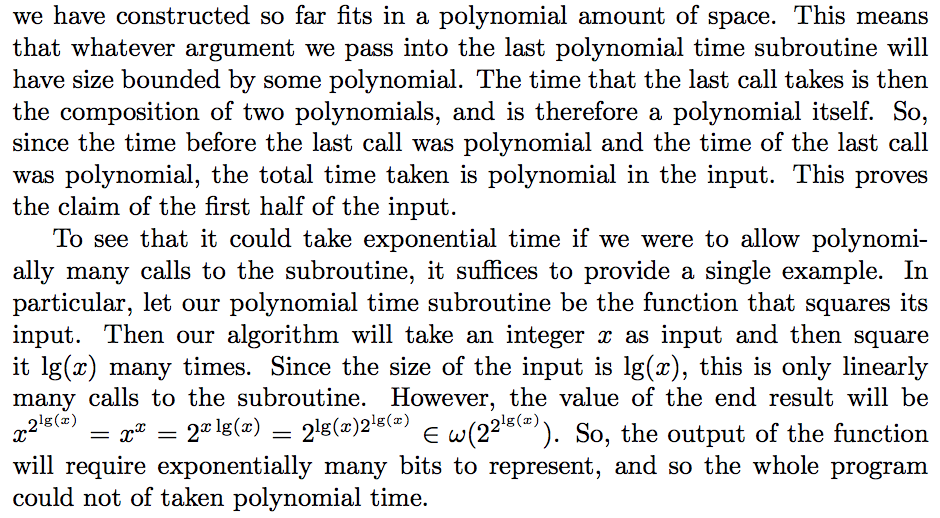


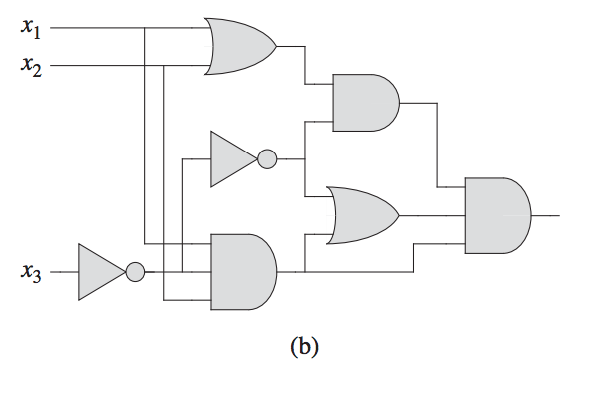
* 1. knapsack problem is a polynomial-time?

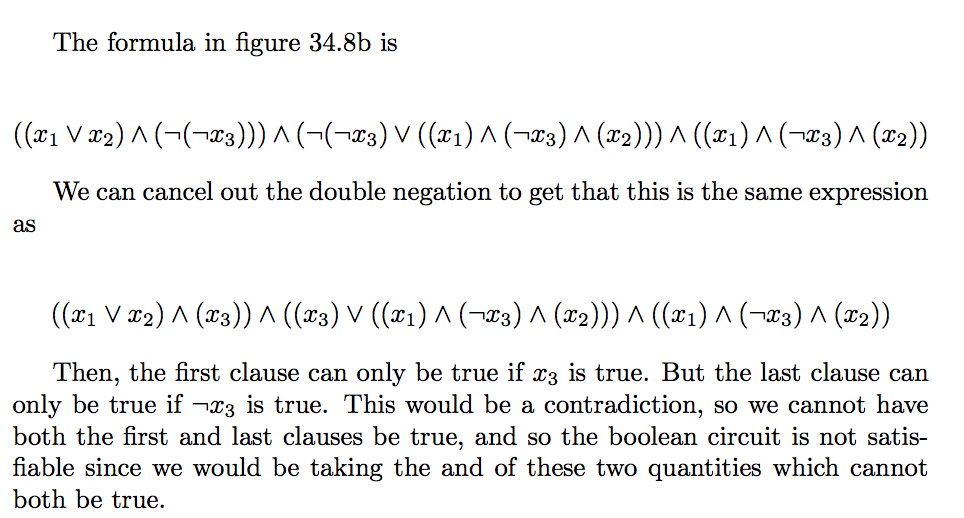












using reduction to prove L is NP-C:

