

MiniHomework #10

Due Time: 2016/12/29 (Thu.) 14:20
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1 Problem

Please answer the following questions with true, false, or unknown. Briefly explain your answers.

- (a) If a problem is in P, it must also be in NP.
- (b) If a problem is in NP, it must also be in P.
- (c) If we can solve the SAT problem in polynomial time, we can solve any NP problem in polynomial time.
- (d) If $P \neq NP$, then there is no polynomial-time reduction from TSP (the traveling salesman problem) to a shortest path problem solvable by Dijkstra's algorithm.