

Math 387

Homework 10

Due Monday, November 23

Practice exercises from the book

9.20, 9.21

Problems

1. Define the unique satisfiability problem $USAT = \{ \langle \phi \rangle \mid \phi \text{ is a boolean formula with exactly one satisfying assignment} \}$. Show that $USAT \in P^{SAT}$.
2. Two-oracle machines are machines that have access to two different oracles. Say that a machine M is given access to oracles for A and B , where one of the two is TQBF and the other is some arbitrary language. Give an algorithm for M that can always solve TQBF in polynomial time.