Theory of Computation

Homework 4

Due: 2008/12/16

Problem 1. Let A be an algorithm that correctly determines whether a given Boolean circuit is satisfiable. Assume that the expected running time of A is polynomial in its input length, so A solves CIRCUIT-SAT in expected polynomial time. Argue whether NP $\subseteq$ BPP.

Problem 2. Should all languages that have polynomial circuits be in PSPACE? Briefly justify your answer.