

Homework Assignment #9
Due: November 30, 4:00 p.m.

1. Let $SUBSET_{TM} = \{\langle M_1, M_2 \rangle : M_1 \text{ and } M_2 \text{ are Turing machines and } L(M_1) \subseteq L(M_2)\}$. Is $SUBSET_{TM}$ decidable? Prove your answer is correct.
2. Let $L = \{\langle M \rangle : M \text{ is a Turing machine that accepts at least 2 different strings}\}$. Is L recognizable? Prove your answer is correct.