CS 4810 Homework Assignment 9 due Monday class Oct 30.

We will grade your homework on clarity and quality of writing.

1. Construct a copy Turing machine that transforms $1q0^n$ to $1p0^n10^n$.

2. Construct the addition Turing machine that transforms $1q0^n10^m$ to $1p0^n10^{n+m}$.

3. Explain the construction where a two counter machine simulates a four counter machine.

4. Define $L_D\{x_i | x_i \notin L(M_i)\}$. Prove that the complement of L_D is r.e.

5. Prove that one can enumerate the strings in any r.e. set.