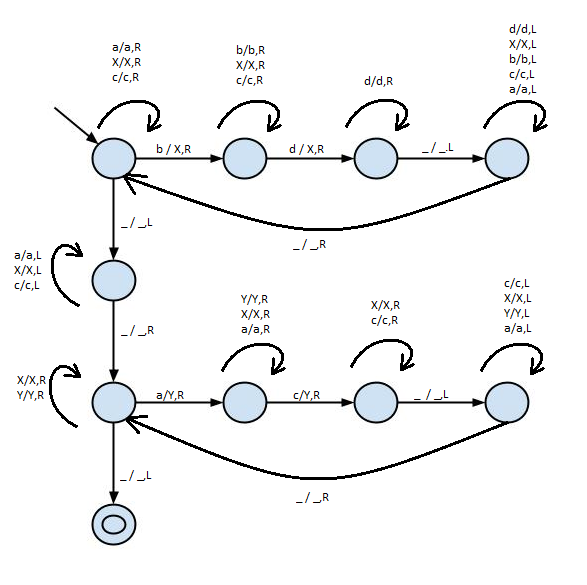
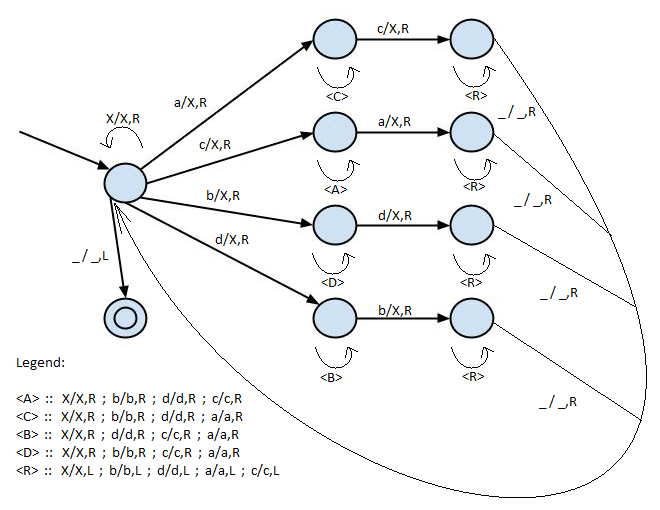
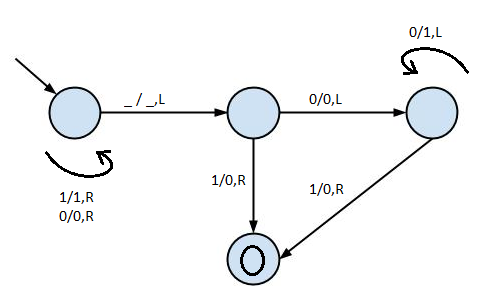
Comp 310 HW 6 Jared Fowler

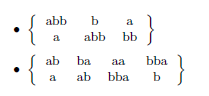
**Problem 1.** Create a TM which decides



**Problem 2.** Create a TM which decides

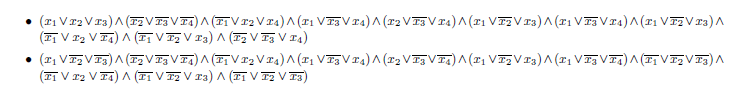
**Problem 3.** Create a TM transducer which begins with a strictly positive binary number on the tape and halts with the binary number which is one smaller on the tape.



**Problem 4.** Solve the following instances of PCP.

Combo: **1,3,1,1,3,2,2** -> abbaabbabbabb == abbaabbabbabb

**Impossible!** Only possible ending pair is set 3, but second to last letters don’t match.

**Problem 5.** Solve the following instances of SAT.

1. **Combination :**
2. **Combination :**