HOMEWORK 9

1. Give state transition diagrams for Turing machines recognizing the following languages:
   a. binary strings in which every 0 is immediately followed by a 1;
   b. binary strings of the form $0^n10^n$ for some $n \geq 0$;
   c. binary strings with equally many 0s and 1s.

2. Sipser 3.10

3. Sipser 3.12

4. Sipser 3.16(a–d)

5. Sipser 3.20