

Given: Fri, Oct 6

Due: Fri, Oct 20, 9:00 a.m.

1. Give a regular expression for each of the following languages. In each case, the alphabet is  $\{0, 1\}$ .
  - (a) The language of strings that begin with  $00$  and end in  $11$ .
  - (b) The language of strings of length at least three that have a  $1$  three positions from the end.
  - (c) The language of strings of even length that start with a  $0$ .
2. Convert the regular expression  $((0 \cup 1)1)^*$  into an NFA. Use the algorithm we learned in class. Don't take any shortcuts.