CMSC 22610 Winter 2004 Implementation of Computer Languages Homework 1 Due January 16

- 1. Write regular expressions for the following languages:
 - (a) Strings over the alphabet $\{a, b, c\}$ with an odd number of bs.
 - (b) Strings over the alphabet $\{a, b, c\}$ where the first c precedes any occurrence of a.
 - (c) Strings over the alphabet $\{0,1\}$ that represent odd binary integers.
- 2. (a)-(c) Draw the finite state machines (NFAs) for the languages in 1(a)-(c).
- 3. Draw the NFA for $a((b|a^*c)x)^*|x^*a$.
- 4. Convert the following NFA to a DFA:

