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Today Finite-state automata (FSAs). §§ 1.1, 1.2. **Next class** Regular expressions, equivalence to FSAs. §§ 1.2, 1.3.

- 1. Write your name below.
- 2. Provide a formal description of the automaton M_4 from page 38 of the textbook, using the description on page 36 as a guide.

- 3. Trace the action of the automaton of Question 2 on the following strings by annotating each character of each string with the corresponding state of the automaton.
 - (a) abbaababa
 - (b) bbbabaaab
 - (c) bbbabaaba

4. Design an DFA that accepts integer literals in Java syntax. Explain how your DFA works.

5. Provide an NFA and a DFA for the language of binary strings whose fourth-from-last character is a 1. Explain briefly.