
CS208 Practice Problem Set 3

These problems are from “Introduction to Automata Theory, Languages and Computation” by Hopcroft, Motwani and Ullman (2nd edition, should work for 3rd edition as well).

1. **Closure properties of regular languages**
Exercises 4.2.2, 4.2.3, 4.2.6(a),4.2.6(c), 4.2.8, 4.2.13(a), 4.2.13(b)
2. **Decision properties of regular languages**
Exercises 4.3.1, 4.3.3 (you may assume that the regular language L in each case is given by a DFA).
3. **Pumping Lemma in action**
Exercises 4.1.1(a), 4.1.1(b), 4.1.2(c), 4.1.2(f), 4.1.2(h), 4.1.3(b)