

Homework #6: MACM-300
Reading: Sipser; Chapter 2; Section 2.1
Distributed on Feb 13; due on Feb 22 (in class)
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Only submit answers for questions marked with †.

- (1) Sipser, q1.39
- (2) Sipser, q1.41
- (3) † Sipser, q1.51
- (4) Sipser, q1.52
- (5) † Sipser, q1.53

Hint: The trick, as before with other pumping lemma proofs, is to find a string that belongs to the language ADD . In this case you should have a string that depends on p , the pumping length on the left-hand side of = *and* the right-hand side.

- (6) Sipser, q2.1
- (7) Sipser, q2.2
- (8) Sipser, q2.3
- (9) † Sipser, q2.4
- (10) † Sipser, q2.6
- (11) Sipser, q2.8
- (12) † Sipser, q2.13