

Theory of Computation CSCI 341, Fall 2016

Recitation 4 2016-09-20

Exercise 1

Read carefully the proof that \mathbb{R} is uncountable in Theorem 4.17, page 205 in Sipser. Following the same ideas, prove that the set of real numbers between 0 and 1 ([0,1]) is uncountable.

Exercise 2

Exercise 1.7 from Sipser, page 84.

Exercise 3

Exercise 1.19 from Sipser, page 86. For this exercise it is important that you follow the algorithm, even if you notice that some states are unnecessary.

Exercise 4

Problem 1.31 from Sipser, page 88.