

Homework 4: Non-Regular Languages Theory of Computation (CSCI 3500)

Write the solution to each question on its own page.

All questions must be in order.

Your name must be on each page.

Then email me a single PDF file of your solution set.

All assignments not adhering to this will not be graded.

0. Prove that the following language is non-regular using the Pumping Lemma:

$$L_0 = \{w \in \{0,1\}^* \mid w = 0^i 1^j \text{ where } i \geq j\}$$

1. Prove that the following language is non-regular using the Pumping Lemma:

$$L_1 = \{w \in \{a,b\}^* \mid w \text{ is a palindrome}\}$$