CpSc 3500 — Goddard

In-class Practice 8: Distinguishable Strings

1. Let L_1 be the language of all binary strings that start with a `0` and end with a `1`. Divide the following strings into equivalence classes with respect to L_1. That is, which pairs are distinguishable and which pairs are indistinguishable?

   `0` `1` `10` `01` `0110` `010101`

   `0` & `0110` indist; `1` & `10` indist; `01` & `010101` indist

2. Same question, but with the language L_2 of all binary strings with both an even number of `0`s and an even number of `1`s.

   `0` by itself; `1` by itself; `0110` by itself; `10`, `01` & `010101` indist

3. Same question, but with the language L_3 of all binary palindromes.

   Every pair of strings are distinguishable