Homework #2 *due October 24, Tuesday 2023, before recitation*

(1) Try to simplify the following expressions and justify your simplification.

(i) *(0+1)*.1.(0+1) +(0+1) *.1.(0+1)*

(ii) *(((0*.1*)+1)*(0+1)*)**

(iii) *(L+M*)**

(iv) *(L.M*)**

(2) Convert the *regular expression ((0.0*.(1.1))+ 0.1)** into an *ε-NFA*

(3) Problems from the textbook

3.1.1 (b) and (c)

3.1.4 (b) and (c)

3.2.1 (c) and (d)

3.2.3