

CS3350 – Homework

DUE: Wednesday October, 15 in class

What?

For each of the following regular expressions, build an NFA, then make it a DFA, and finally minimize it. In doing so, you are expected to follow the procedure presented in class. (Submitting any other approach will be considered a non-submission).

Language 1: $((a \cdot (ab^+ \cdot a)^*) \cup (b \cdot (ab^+ \cdot a)^*)) \cdot (aaa)^+$

Language 2: $((abc \cdot b^*) \cup (abc \cdot c^*))^+ \cdot cba$

Language 3: $(aaab \cdot (a^* \cup b^*)) \cup (aaab \cdot (a \mid b)^*)$

** Important note: you are not supposed to modify the regular expression (even into an equivalent one): you can only use these expressions and their corresponding expressions trees to build NFAs.*

How to turn it in? in which format?

On paper, in class. As clearly and legibly written and organized.

By when?

Wednesday October 15 at the start of class. Failure to submit on time will result in 10 points off. Late submissions will not be accepted after October 16.

To whom?

To your instructor in person.