

Write your answers electronically. Turn in your homework as a pdf file via checkin by Thursday January 31st at 11:59pm. You may look on the web or ask a friend for help, but make sure you state/cite what help you have had in completing the assignment. Also ensure that you could answer similar questions on a test by yourself. Hand-written submissions that have been scanned into a pdf file are fine. Total points: 100

1. [25 Points] Regular Expressions

What is the regular expression for a Java identifier? Record the URLs you use as reference in the homework.

2. [25 Points] Regular Expressions to NFA

Draw an NFA for the regular expression for a Java identifier.

3. [25 Points] NFA to DFA

Convert the NFA into a DFA.

4. [25 Points] Another example

Draw the NFA and then convert the NFA into a DFA for the following regular expression for val.

A: 0 | 1
val: A*