

CMSC330 Fall 2013 Quiz #2

Name _____

Discussion Time	9am	10am	11am	Noon	1pm
TA Name (circle):	Ilse	Daniel	Casey	Yoav	Ilse
	Richard	Richard	Richard		

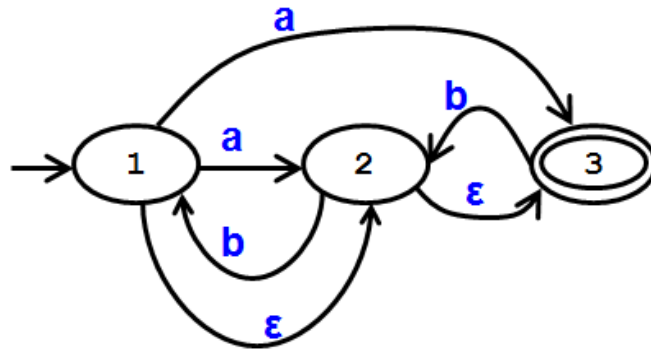
Instructions

- **Do not start this test until you are told to do so!**
- You have 15 minutes for this quiz.
- This is a closed book exam. No notes or other aids are allowed.
- Answer essay questions concisely in 2-3 sentences. Longer answers are not needed.
- For partial credit, show all of your work and clearly indicate your answers.
- Write neatly. Credit cannot be given for illegible answers.

1. (8 pts) RE to NFA

Create a NFA for **(albc)***, using the algorithm discussed in class.

2. (12 pts) Consider the following NFA.



- a. (2 pts) Does the NFA accept the string “bb”? If it accepts the string, list a sequence of state transitions (e.g., 1,2,3) that leads to acceptance of “bb”.
- b. (10 pts) Convert the NFA to a DFA using the subset construction algorithm discussed in class. Be sure to label each state in the DFA with the corresponding state(s) in the NFA.