

You may have a “Cheat Sheet” with definitions and results (theorems, etc.) on it. It may not contain worked examples.

1. True/False questions
2. Question about the relationship between various types of languages.
3. Question about identifying regular expressions, DFAs, NFAs, GNFA's, languages, etc.
4. Let  $A = \{w \mid \text{<insert some criteria here>}\}$ . (1-2 of this type with 1-2 of the following parts.)
  - a. Give a regular expression that describes  $A$ .
  - b. Give a DFA that recognizes  $A$ .
  - c. Give an NFA that recognizes  $A$ .
  - d. Give a DFA that recognizes  $A^*$ .
  - e. Is  $A$  a regular language? Prove your assertion.
5. Let  $R = \text{<insert regular expression here>}$ . (1-2 of this type with 1-2 of the following parts.)
  - a. Give a DFA that recognizes  $L(R)$ .
  - b. Is  $L(R)$  a regular language? Prove your assertion.
6. Let  $A$  and  $B$  be regular languages. Prove that  $C = \text{<insert some language that somehow combines } A \text{ and } B \text{ here>}$  is a regular language.