

**Read Chapter 3.**

**Be prepared to answer these kinds of questions:**

- Given a regular expression, determine all generated strings with specified length N.
- Write a regular expression that generates a given language.
- Given a regular expression, draw an equivalent finite-state machine.
- Given a finite-state machine, write an equivalent regular expression.
- Given a proposed identity related to regular expressions, determine whether the identity is true or false, and justify your answer. (If false, specify a string that can be generated by one expression but not the other.)
- Use algebraic properties to simplify a given regular expression.
- Given a language and a regular expression, does the given expression generate the given language? Justify your answer.
- Given a regular expression, write a simple description for the language that it generates. Justify your answer.