1. Circle all that are true: In a grammar,
   a. “x | y” means “x or y”.
   b. a terminal is indicated by putting <> around a name.
   c. each non-terminal must have a unique expansion.
   d. the starting non-terminal must have only terminals on its right hand side.

2. Circle one: The statement:
   JP = {strings w : w is a syntactically correct Java program} signifies that
   a. all strings are syntactically correct Java programs.
   b. all syntactically correct Java programs are strings.
   c. JP consists of all possible strings.
   d. a string is a language.

3. Fill in the blank: Operator precedence or parentheses are needed for infix to _resolve ambiguity___________________.

4. Circle all that are legal prefix expressions from the grammar in class:
   a. + - a b.
   b. + a – b c.
   c. * / a – c d b.
   d. * / - a c d b.

5. Circle all that are true:
   a. Bottom-up parsing matches the terminals to the right hand side of rules and continues to replace them with non-terminals until it can replace the set with the starting non-terminal.
   b. Parsing may require backtracking because there are multiple choices for expansion of non-terminals.
   c. Ambiguous grammars cannot be parsed.
   d. A rule in a grammar cannot have the same non-terminal on both the right and left side of the =.