MTH 135 Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Fall 2013

Starkey

**Chapter 3 Quiz**

25 points

1. Define syntax and semantics in the context of programming languages.
2. What is the most common way to describe the syntax of a programming language?
3. What are the three most common ways to describe the semantics of a programming language? Give a brief description of each.
4. Given the following grammar for an assignment statement…

a. Show a leftmost derivation for A = B + C \* A

b. Show a parse tree for A = B \* (C \* (A + B))

1. Explain how to show a particular grammar is ambiguous.
2. Compute the weakest precondition for the following sequence of assignment statements with the given post condition.