1. The following sentence has a coordination ambiguity. Draw two parse trees that attach the ambiguity in two different locations: *He lost the bent nail and hammer.*

2. Convert this grammar to Chomsky Normal Form (pg 437). *(put your grammar below on the right)*

   S -> VP NP
   VP -> Aux VB NP
   NP -> JJ NN NN
   NP -> JJ NN
   NP -> the NN

3. Section 13.4 describes the CKY parsing algorithm. Figure 13.10 gives the pseudocode. What is the complexity (big-oh notation) of this algorithm? Use $n$ as the number of words in a sentence. Describe your answer for partial credit in case you are incorrect.

   $O( )$