1. **Fill in the missing labels** for the nodes in the tree below. Where a node is the maximal projection of a lexical item, indicate it with the standard “X-bar” notation (e.g., NP for the maximal projection of a noun, v′ for an intermediate projection of v). The sentence is *Cyrano secretly mailed bundles of paper to Roxane*. I have indicated the category feature of each lexical item. The arrow is for use in question 4.

2. In the sentence for which the structure is given above:
   a. Is *mail bundles* a constituent?
   b. Is *bundles of paper to Roxane* a constituent?
   c. Is *secretly mail* a constituent?
   d. What is the specifier of V?
      [Note: “specifier of V” means the same thing as “specifier of VP”]
   e. What is the complement of v?
   f. Are T and secretly sisters?

3. **Circle one:** The verb shown in the structure above is
ditransitive / transitive / unergative / unaccusative

4. Circle every node in the tree above c-commanded by the node designated by the arrow.

5. Name the θ-role that *[to Roxane]* has:
6. Suppose we start building a structure for a sentence, and at a certain stage we wind up with a \( vP \) as shown (abstractly) below.

\[
\begin{array}{c}
\text{vP} \\
vP \\
\text{PP} \\
\text{NP}_1 \\
v' \\
P \\
\text{NP}_4 \\
\text{NP}_2 \\
\text{NP}_3 \\
\text{PP} \\

\end{array}
\]

a. Name the \( \theta \)-role that the \( \text{NP}_2 \) will have.

b. If \( \text{NP}_4 \) were an anaphor, which NPs could serve as its antecedent? (That is: Which NPs could potentially bind \( \text{NP}_4 \)?)

c. How many \([uP]\) features were there, total, in these lexical items initially?

d. Which of the following three sentences might plausibly include this kind of \( vP \)?

1. I rent movies about crime from Blockbuster.
2. I read books about cities with subways beneath them.
3. I drink tea in summer with delight.

7. Circle one: The verb shown in the structure above is
ditransitive / transitive / unergative / unaccusative

8. Binding Theory. The sentence below is “trying to mean” *Mary claimed that she (Mary) nominated herself*. Two questions, about the sentence below:

a. Which NP ensures that the sentence satisfies Principle A?

b. Which Principle makes the sentence ungrammatical on the intended interpretation?

*She\(_1\) claimed that [Mary\(_1\) nominated herself\(_1\)].
9. Suppose you had a sentence with the following abstract structure. I have provided two lexical items (the NP dinner and the verb burn). Fall 2009 note: In part (c), you need to change the verb form into whatever is appropriate—“burn” is provided here as the uninflected base form. Also, assume that T is a present tense (nonpast) T.

\[
\text{TP} \\
\text{NP} \quad \text{T'} \\
\text{dinner} \quad \text{Prog+T} \quad \text{ProgP} \\
\text{[N]} \quad \text{[…pres…]} \\
\text{<Prog>} \quad \text{vP} \\
\text{V+V} \quad \text{VP} \\
\text{burn} \quad \text{<V>} \quad \text{<NP>}
\]

\begin{enumerate}
\item Irrelevant for Fall 2009, asks about something we haven’t covered.
\item Irrelevant for Fall 2009, asks about something we haven’t covered.
\item Write the sentence that this would be the structure for.
\item What was the motivation to Merge T and ProgP?
\item What was the motivation to Merge V and NP?
\end{enumerate}

10. What makes the following sentence ungrammatical, in terms of the system developed in class? Fall 2009 note: We haven’t completely formalized the process that has gone wrong here, but we have talked about it sufficiently that you can probably identify the problem.

*Patricia did not be hiding her income.*