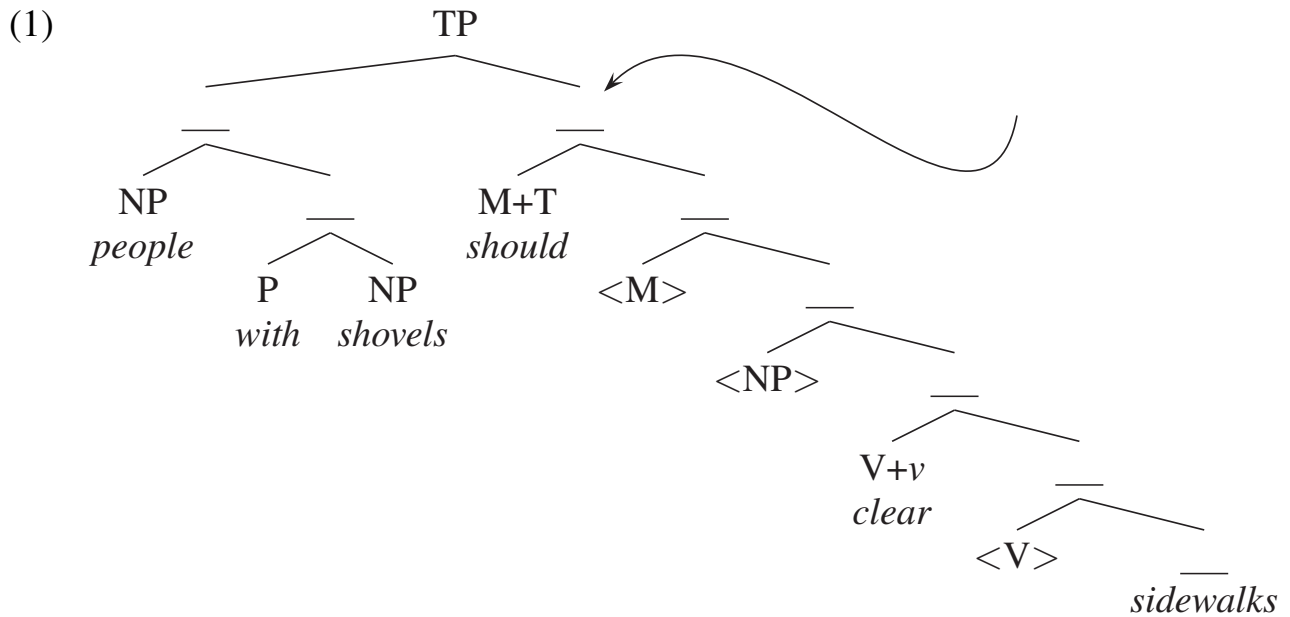**Budget your time. 30 points total. 80 minutes.**
The number of points assigned to each part is indicated by a number in brackets.

1. [8] Fill in the missing labels for the nodes in the tree below. Where a node is the maximal projection of a lexical item, indicate this 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 *People with shovels should clear sidewalks*. The arrow is for use in question 4.

(1)

2. [6] Yes or No. In the sentence for which the structure is given in (1)...

(a) Is *should clear* a constituent? _____

(b) Is *clear sidewalks* a constituent? _____

(c) Is *sidewalks* a complement? _____

(d) Is *should* a specifier? _____

(e) Is *with shovels* an adjunct? _____

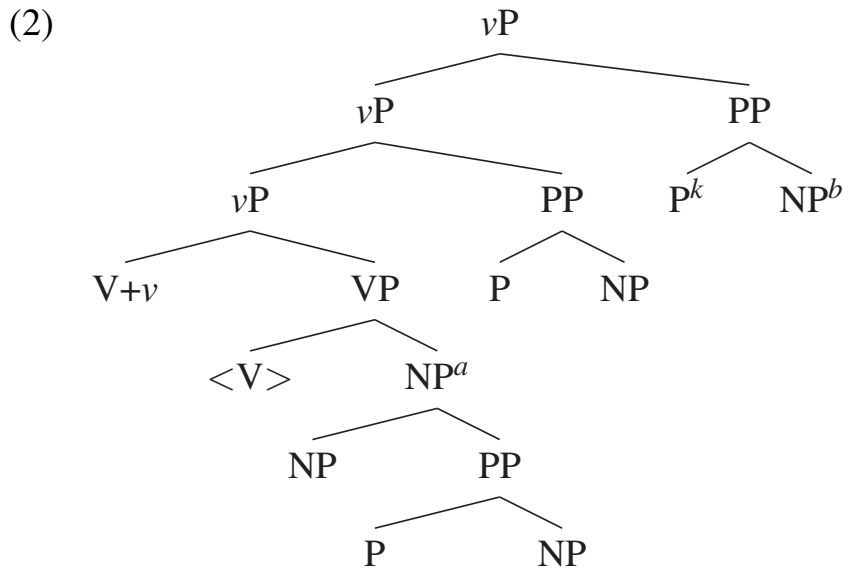(f) Does the MP (that you wrote) dominate the T′ (that you wrote)? _____

3. [1] Circle one. The verb shown in the structure in (1) above is...

ditransitive / transitive / unergative / unaccusative

4. [1] C-command. The arrow in the tree above points to a node. Circle every node in the tree that node c-commands.

5. [1] θ-role. Name the θ-role that *People with shovels* has in (1). _____

6. Suppose we start building a structure for a sentence, and at a certain stage we wind up with a *v*P as shown (abstractly) below in (2). *Note:* The superscripts are just for identification purposes—they aren't part of the structure, I just need to be able to refer to the individual nodes.

(2)

```
                            vP
              _____|_____
             vP                           PP
        _____|_____                    ___|___
       vP          PP               P^k      NP^b
    ___|___      __|__
  V+v      VP   P     NP
        ___|___
     <V>      NP^a
           ___|___
          NP      PP
               ___|___
              P      NP
```

(a) [1] Name the θ-role that the NP^a has. _____

(b) [1] Name the operation (Merge, Adjoin, Move) that connected P^k and NP^b.

_____

(c) [1] How many [uN*] features were there—total—in these lexical items initially?
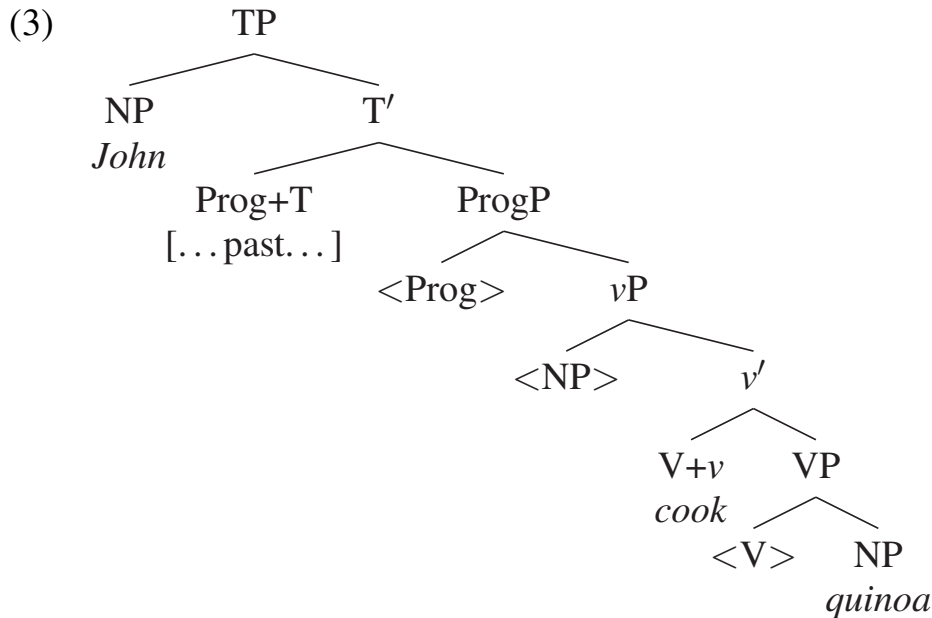
_____

(d) [1] Which of the following three sentences might plausibly include the *v*P in (2)?

1. Give estimates about expenses to Pat by Friday.
2. Performers without traces of talent sang on stage.
3. Soup with bacon boiled with vigor on TV.

7. [1] Circle one. The verb shown in the structure in (2) is...

<p style="text-align:center">ditransitive / transitive / unergative / unaccusative</p>

8. Suppose you had a sentence with the abstract structure given below in (3). I have provided the pronunciation of two lexical items (the NP, *John*, and the bare (uninflected) form of the verb, *cook*).

(3)
```
                    TP
              ┌──────┴──────┐
            NP              T′
           John       ┌─────┴─────┐
                   Prog+T        ProgP
                  [...past...]  ┌───┴───┐
                            <Prog>      vP
                                   ┌─────┴─────┐
                                 <NP>          v′
                                           ┌────┴────┐
                                         V+v         VP
                                         cook      ┌──┴──┐
                                                 <V>     NP
                                                       quinoa
```

(a) [1] Draw arrows in the tree that show, when things moved, where they moved from and to.

(b) [1] Write the sentence that this would be the structure for.

_____

(c) [1] What was the motivation to Merge *v* and VP?

_____

(d) [1] What was the motivation to Merge T′ and NP (*John*)?

_____

9. [2] Binding Theory I. Consider the sentence in (4), which is "trying to mean" *John told himself that Mary didn't omit him (John) intentionally*, and answer the questions about it listed below.

(4)   * He$_i$ told John$_i$ that Mary didn't omit himself$_i$ intentionally.

(a) [1] Which noun phrase(s) bind *John* in (4)? _____

(b) [1] Which Principle of Binding Theory is *not* violated in (4)? _____

10. [2] Binding Theory II. Now consider the sentence in (5), which is "trying to mean" *Mary convinced herself that she (Mary) would win*, and answer the questions about it listed below.

(5)   * Mary$_i$ convinced her$_i$ that herself$_i$ would win.

(a) [1] Which noun phrase(s) bind *herself* in (5)? _____

(b) [1] Which Principle of Binding Theory is *not* violated in (5)? _____