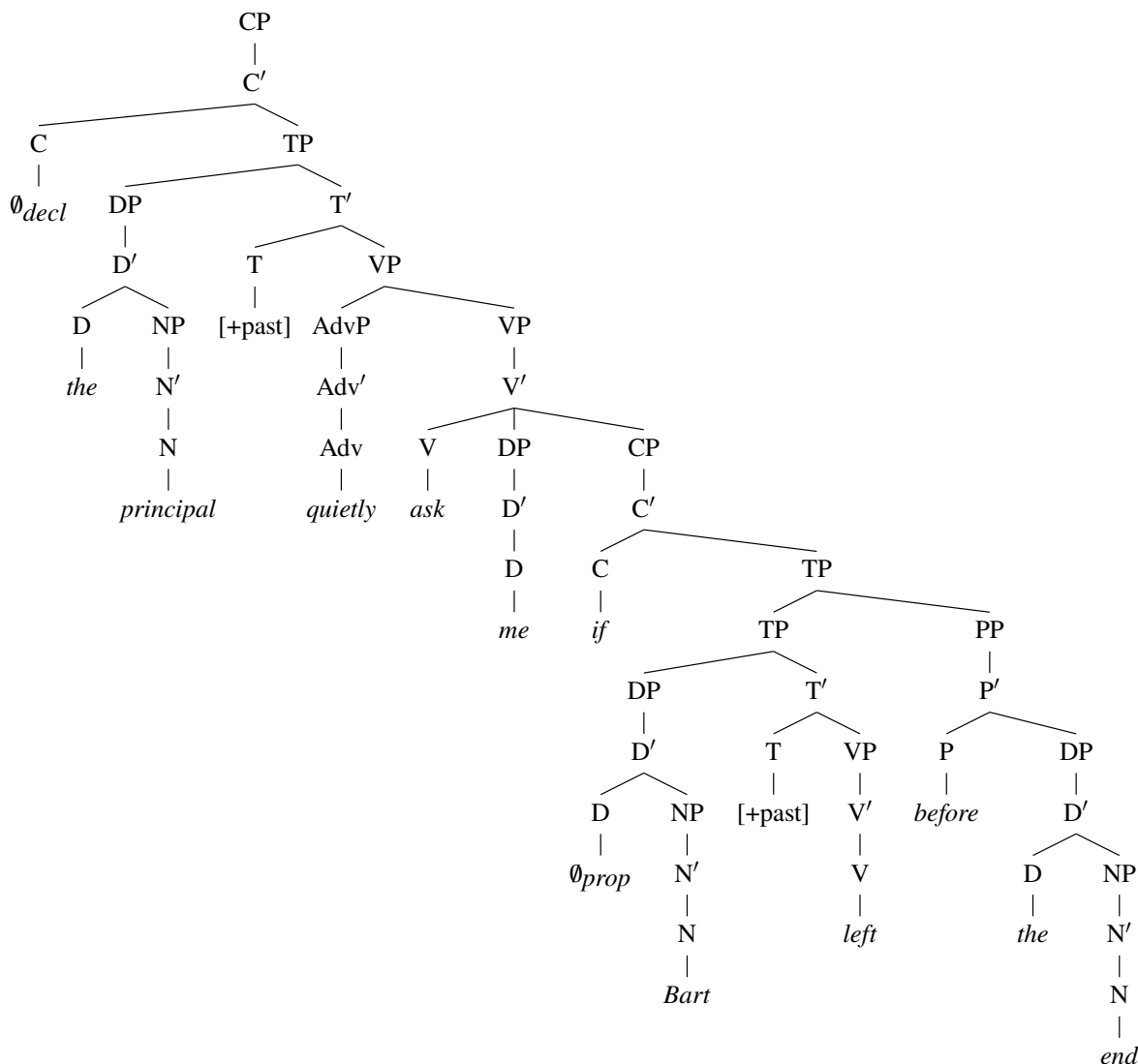# 1   From trees to rules and *vice versa* (8 points, combined)

1.1   Tree to PS rules [2 points]

Provide the phrase structure rules required to derive the V parts of the tree below. Only the rules that have something of category V (verb) on the left. **Include all and only those rules needed for this tree.** So, any rule employed in the derivation of this specific tree, but no rules that are not needed for this specific tree. No lexical items needed either.

As an example: If I had asked for the P parts, you would have written:

$$PP \rightarrow P'$$
$$P' \rightarrow P\ DP$$

```
                          CP
                          |
                          C'
              ┌───────────┴───────┐
              C                   TP
              |           ┌────────┴───────┐
            Ø_decl        DP               T'
                          |        ┌────────┴──────┐
                          D'       T              VP
                     ┌────┴──┐  [+past]  ┌──────────┴────┐
                     D      NP          AdvP             VP
                     |       |           |                |
                    the     N'          Adv'             V'
                            |            |        ┌────┬──┴──┬───────┐
                            N           Adv       V   DP          CP
                            |            |        |    |          |
                        principal     quietly    ask  D'          C'
                                                      |      ┌─────┴──────┐
                                                      D      C           TP
                                                      |      |    ┌───────┴──────┐
                                                     me      if   TP            PP
                                                          ┌──────┴──┐           |
                                                          DP         T'         P'
                                                          |      ┌───┴───┐  ┌────┴────┐
                                                          D'     T      VP  P        DP
                                                       ┌──┴──┐[+past]   |  before     |
                                                       D    NP          V'          D'
                                                       |     |          |        ┌───┴──┐
                                                     Ø_prop  N'         V         D    NP
                                                             |          |         |     |
                                                             N         left      the   N'
                                                             |                         |
                                                           Bart                        N
                                                                                       |
                                                                                      end
```

1.2 X-bar structure [1 point]

Which phrases are adjuncts in the structure above? (Based on the tree alone, use the words in the phrase to identify them)
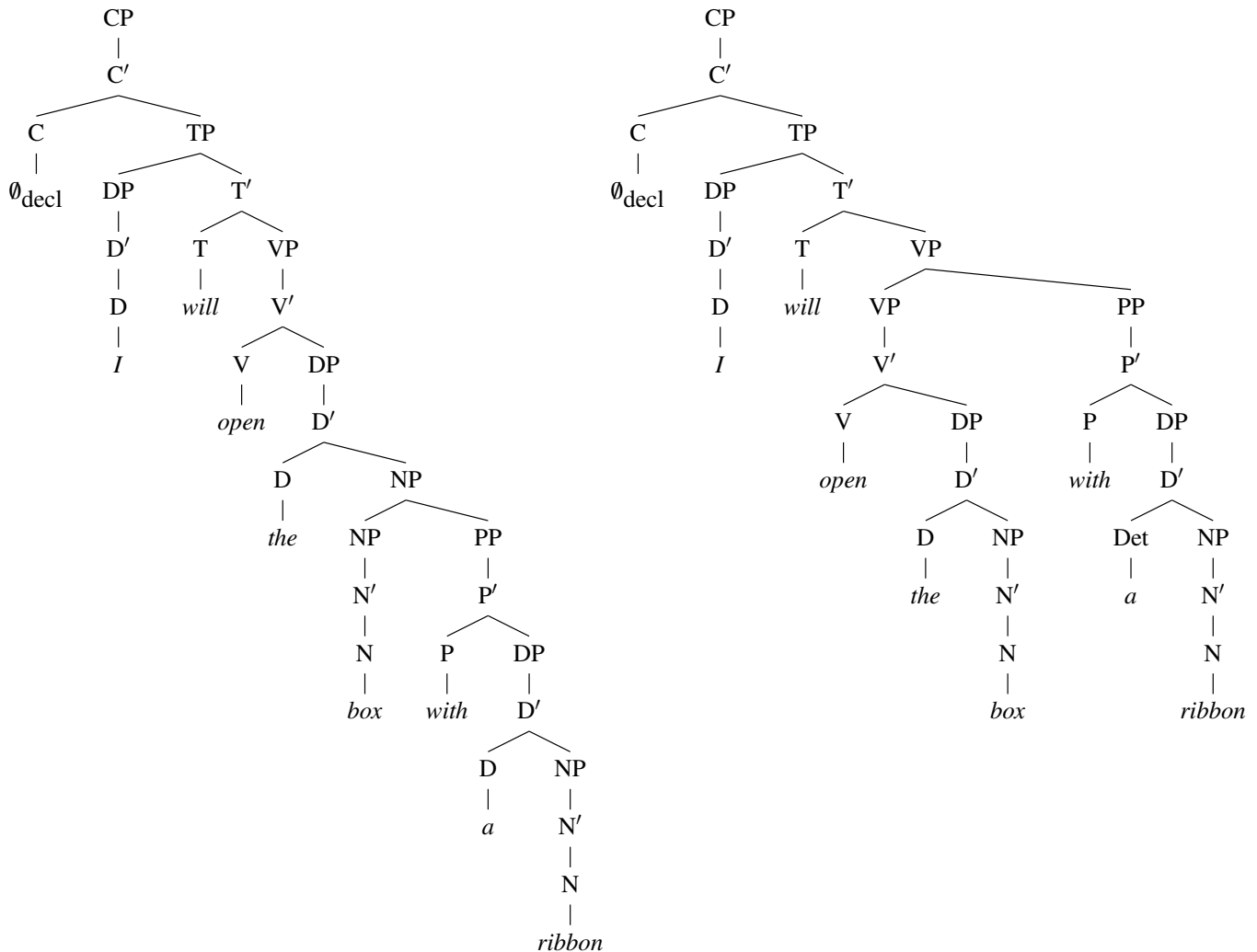
1.3 PS rules to tree [5 points]

Provide a tree diagram for the following sentence based on the grammar below. (Assume the lexical items that would be appropriate, you can consider *before* to be a P, and *no* to be a D.) You may find that the rule system allows for more than one possible structure. If so, provide the structure that best captures the most likely meaning of the sentence. The root node of the tree should be CP.

They told me that a squeaky wheel will gather no substantial moss before the appropriate time.

CP →	C′
C′ →	C TP
TP →	DP T′
T′ →	T VP
DP →	D′
D′ →	D NP
D′ →	D

VP →	V′
VP →	VP PP
V′ →	V DP
V′ →	V DP CP
AdjP →	Adj′
Adj′ →	Adj

NP →	N′
NP →	AdjP NP
NP →	NP PP
N′ →	N
PP →	P′
P′ →	P DP

2 Developing an argument (4 points)

```
            CP                                      CP
            |                                       |
            C'                                      C'
          /    \                                  /    \
         C      TP                               C      TP
         |     /  \                              |     /  \
      Ø_decl  DP   T'                         Ø_decl  DP   T'
              |   /  \                                |   /  \
              D' T    VP                              D' T    VP
              |  |    |                               |  |   /  \
              D  will V'                              D  will VP   PP
              |     /  \                              |    |       |
              I    V    DP                            I    V'      P'
                   |    |                                /  \     /  \
                  open  D'                              V    DP  P    DP
                      /   \                             |    |  |     |
                     D     NP                          open  D' with  D'
                     |    /  \                              /  \     /  \
                    the  NP   PP                           D    NP  Det  NP
                         |    |                            |    |   |    |
                         N'   P'                          the   N'  a    N'
                         |   /  \                               |        |
                         N  P    DP                             N        N
                         |  |    |                              |        |
                        box with D'                            box     ribbon
                                /  \
                               D    NP
                               |    |
                               a    N'
                                    |
                                    N
                                    |
                                  ribbon
```

Task. The two tree diagrams for *I will open the box with a ribbon* above represent two different meanings, one is more sensible/likely (the box has a ribbon) than the other (the tool is a ribbon).

- **Part A**: Provide a sequence of words that form a constituent only in the first tree.

- **Part B**: Provide a sequence of words that form a constituent only in the second tree.

- **Part C**: Write two consituency test sentences for each of those potential constituents you identified in the two parts above (so, four test sentences in total), and indicate what you expect the available meanings will be for each. (You don't need to judge whether they do in fact have the predicted meanings, just say what the predictions are.) You can refer to the meanings as the "ribbon-box" meaning and the "ribbon-tool" meaning.

3   Building a lexicon (5 points)

Observe the following data. For each, come up with a lexical entry for the underlined word. (Primarily, this is about constructing (a) subcategorization frame(s) for each.) You may add a few words how your lexical entry explains the data in question, if there is anything you'd want to say beyond just what it says in the lexical entry. (No need to just restate the lexical enty in prose.)

(1)   a.   Pat balanced the book on its edge on the table
      b.   Pat balanced
      c.   Pat balanced the book
      d.   Pat balanced on the table
      e.   Pat balanced on one foot
      f.   * Pat balanced the book the pencil on the table

(2)   a.   Tracy encouraged Pat to leave.
      b.   * Tracy encouraged.
      c.   * Tracy encouraged to leave.
      d.   Tracy encouraged Pat.

(3)   a.   Pat financed the movie.
      b.   * Pat financed.
      c.   * Pat financed the movie the popcorn.

(4) a. Pat <u>revealed</u> the statue.

     b. Pat <u>revealed</u> the statue at the celebration.

     c. * Pat <u>revealed</u>.

     d. * Pat <u>revealed</u> the statue the artist.

(5) a. Pat <u>handed</u> me a book.

     b. * Pat <u>handed</u> a book.

     c. * Pat <u>handed</u> me.

     d. * Pat <u>handed</u>.