1. Trees. Draw structures for the following sentences, using our newfound knowledge about the DP. For this exercise you do not need to draw each step separately, nor do you need to write out all of the features and how they are checked. What I do want you do to is indicate the case of each DP (nominative, genitive, or accusative) with an arrow from the head that values the case feature. Otherwise, just draw the structures with terminal nodes that are labeled for their category and phrasal status (X, X’, or XP), and draw traces as category labels in brackets. Note: Treat dump in (a) as a ditransitive (like give).

Example.

```
TP
  DP NOM
    D
      the
        nP
          <NP>
            T
              vP
                v
                  <VP>
                    V
                      v
                        left
              T
                v
                  <VP>
                    V
                      v
```

The students left.

a) Kate dumped a roll of Mentos into her brother’s Coke.
b) The bottle exploded spectacularly in the kitchen.
c) Her brother was sued by the landlord.

2. German Noun Phrases. (Based on a problem from Carnie 2002). Consider sentence (a) from German, and the sentences (b–e), which are grammatical, and can be used to refer to the same woman as (a) does.

a) Die schlanke Frau aus Frankreich isst Kuchen mit Sahne.
   the slim woman from France eats cake with cream
   ‘The thin woman from France eats cake with cream.’

b) Die Schlanke aus Frankreich isst Kuchen mit Sahne.
   ‘The thin one from France eats cake with cream.’

c) Die aus Frankreich isst Kuchen mit Sahne.
   ‘The one from France eats cake with cream.’

d) Die Schlanke isst Kuchen mit Sahne.
   ‘The thin one eats cake with cream.’

e) Die isst Kuchen mit Sahne.
   ‘She eats cake with cream.’
Now consider sentences (f–i):

f) Die junge Koenigin von England liebte die Prinzessin.
The young queen of England loved the princess
‘The young queen of England loved the princess.’

g) Die junge liebte die Prinzessin.
‘The young one loved the princess.’

h) Die liebte die Prinzessin.
‘She loved the princess.’

i) *Die von England liebte die Prinzessin.
(*The one of England loved the princess.’)

Assume the following things:
i) Der/Die are always determiners, they are never nouns or pronouns.
ii) Schlange, junge, are always adjectives, even in sentences (f) and (d)—assume they never become nouns. (Ignore the rules of German capitalization).
iii) The sentence structure of German is just like that of English. (Note: This is actually false, but we’ll talk about the differences between German and English in a future class. Specifically, do not concern yourself with the fact that German is a “verb-second” language, or that it puts the verb at the end in embedded clauses.)

The questions:
1) Describe and explain the process seen in (a–e) and (f–i). What English phenomenon is this similar to? Hint: Look at the German. Look at the English translation. By assumption (iii) above, the structures are the same. We talked about sentences like the English translations. How do you carry that same idea over to German? That is, what small difference could predict the German facts?

2) Draw the two different structures for sentence (a). Just draw the trees—no steps, no features being checked, no case arrows. Assume that Kuchen mit Sahne is all one noun phrase (that we’re talking about ‘cake with cream,’ not, e.g., ‘eating with cream’), but there are still two (slightly different) structures that (a) can have. Hints: One of the structures is related to sentence (c), the other is related to sentence (d), and it has to do with how adjuncts are attached. Try to answer 1) first before trying to see what the difference between the two trees implies.

3) Draw the structure for sentence (f). Same rules as above. Hint: There is a sense in which queens of England are like books of poetry.

4) Explain why (i) is ungrammatical. In particular, explain the difference between sentence (i) and sentence (c). You may feel free to draw (or to not draw) partial trees to help explain your answer. Hint: It’s pretty much the same as what makes the English translation of (i) ungrammatical.