## SENTENCES FOR PROBLEM \#1

(i) Who(m) should he persuade to send flowers to me?
(ii) The white dome appears to have collapsed in the storm.
(iii) John thinks that his car needs oil.

Problem 1. For each of the sentences in (i-iii):
(42 points total, 14 for each sentence)
a. ( $\mathbf{2}$ points) For each italicized predicate, for each $\theta$-role that the predicate assigns, list the $\theta$-role (one of: Agent, Experiencer, Theme, Goal, Proposition) and indicate what constituent it is assigned to.

Notes: Include whatever $\theta$-roles are assigned by $v$ or $n$ as well as whatever $\theta$-roles are assigned by V or N -as in the example tree.
b. (8 points) Draw a tree, showing where all the elements of the structure are after all of the movements are finished. See the example tree. Where something moves, put traces in the tree at each position occupied by the moving element (don't forget intermediate positions). Connect the initial trace (at the original Merge position) to each subsequent trace and to the final position of the moved element with arrows.

Notes: You do not need to list all of the features for each head. Draw everything in full (adjunction, DPs, etc.), as on the example tree. No triangles-except: If you have already drawn a similar DP in full (e.g., proper names), you may use a triangle for subsequent DPs with identical structure. Such triangles must be actually drawn (no "implicit triangles").
c. (4 points) On the tree you drew for part (b), for each underlined DP circle the head that checks its case feature. Then, write the case it receives by the $\overline{\mathbf{D P} \text { (one of: nominative, accusative, genitive, }}$ of).

Notes: If the head is a complex head, circle the top node (see example tree). If the head has moved away after checking the case feature, circle the trace that is in the position where the case feature was checked.

## Example tree on next page

Problem 1(i) Who(m) should he persuade to send flowers to me?


In the assignment of accusative case to flowers here, a few people wrote ACC down by the (flowers). Really, it is the DP (not the NP or $n P$ ) that gets case, better to write it by the DP. I didn't actually take any points off for this, but just so you know.

A few people put (to) me as a Goal in part (a), but (to) me is the Goal of send, not persuade. Also, send is ditransitive, like give.

With respect to the $\theta$-roles, I asked you to provide the $\theta$-roles for the verb persuade. I did this on purpose, because I wanted to call your attention to the fact that who $(m)$ is the Theme of persuade. Some people correctly identified $w h o(m)$ as the Theme of persuade, but then went on to draw a tree in which who(m) was the Agent of give. PRO is the Agent of give. That's why I wanted to focus your attention on persuade.

A few people wrote " $\mathrm{C}+\mathrm{T}+\mathrm{M}$ " instead of drawing out the complex head. I allowed this for " $v+\mathrm{V}$ " so long as elsewhere it was drawn out, but I took half a point if there were no other examples.

There were a few people who didn't move the subject into the specifier of TP. There must always be a subject in the specifier of TP (in English, at least).

Also: Pronouns have no internal structure. A pronoun is just a bare D. This goes for he, me, and also for who(m). I took one half-point off per tree for giving internal structure to the pronouns.

If a verb has an Agent, that verb must have something in the specifier of $v P$. Particularly in the cases where the Agent was PRO, a lot of people just failed to put the Agent there. But that's the whole point of PRO, it is there because we need to assign the Agent to something.

Occasionally, people would have a node with only a single child-you can't build such a structure. No single branches. Merge is the way you build structure, and it is defined as something that combines two things. There's no benefit anyway to "combining" one thing into one thing. This was something that was different in Intro-reverting to the rules from Intro isn't really the way the Syntax final should be approached.

Average: 10.55 (3.84)

Problem 1(ii) The white dome appears to have collapsed in the storm.


See the notes for the previous tree for a number of things that also apply here.
Forgetting to put a $C\left(\emptyset_{\text {DECL }}\right)$ at the top (that is, stopping at TP) cost a half-point.
I think in the storm is probably best attached to TP, as I drew it, although I didn't take any points off for attaching it to $v P$.

This was a reference to the collapse of the roof of the Metrodome just outside Minneapolis, in a heavy snowstorm that happened just a couple of days before the final.

I took a point for calling the $\theta$-role of the white dome Experiencer-it's Theme. Even if for no other reason, an EXPERIENCER needs to be a conscious being (cf. \#The house saw me).

Adjectives don't go in the specifier, they are adjoined. I know it was different in Intro, but this isn't Intro.

A number of people correctly put a DP in the Theme position for collapse (DP daughter of $V P$ ), but then moved it into the specifier of $v P$-that's not possible, the specifier of $v P$ is where Agents/Experiencers go, and the Theme already has a $\theta$-role.

I think a few people were thrown off by the fact that collapsed ends in -ed. It is not a past form, it is a perfect form (that is, it is the -en form, like frozen). That is, neither The ice will have frozen (by tomorrow), nor The dome will have collapsed by tomorrow, are past forms, they are perfect forms.

Average: 11.43 (2.66)

Problem 1(iii) John thinks that his car needs oil.


## a. think <br> Experiencer: John <br> Proposition: that his car needs oil

I think John in John thinks... is in fact an Experiencer, but I accepted Agent as well.
Quite a lot of people didn't draw out the structure for John (it's not a pronoun, it has an internal $n \mathrm{P}$ and NP). For some reason I didn't take points off for this.

Many people made errors in the possessive structure. His is not a $D$, it is a DP that must originate in the specifier of PossP. A number of people also labeled his as if it were the Poss head moving up
to the specifier of DP, changing category into a DP somewhere along the way. Also, people suggested the Poss is the origin of the genitive case, but it's not, it's the $D\left(\emptyset_{G E N}\right)$. Poss is a little bit like $v$-it introduces an argument and provides it (structurally) with a $\theta$-role.

Average: 12.45 (2.0)

Example for Problem 1: I will enjoy the vacation.
b.,c.

a. enjoy

EXPERIENCER: I
THEME: the vacation
[decl]


Problem 2. (6 points) Suppose that there is a dialect of English, Slighen, that has all the same properties as English does (including vocabulary), except for the following:
a. T lacks the "EPP" feature: T does not have a $\left[u \mathrm{D}^{*}\right]$ feature.
b. When valued by C, [uclause-type:] on T is strong (always, not just for questions).

Write the Slighen translations of the following two English sentences (that is, put the words in the correct order for Slighen). Note: Slighen doesn't exist. But it could, in principle.
(i) The laptop fell off the table

Did fall the laptop off the table.
(ii) Tomorrow I might not be meeting him

Might tomorrow not be I meeting him.
On (i), there should be do-support, but there were a lot of people who wrote Fell the laptop off the table. I took off only a half-point for missing do.

I intentionally picked an unaccusative verb (fall), so the laptop is a Theme and should be initially Merged after fall. If you didn't catch that, you would likely have had the laptop fall instead of fall the laptop, which I took a point off for.

On (ii), it was alternatively acceptable to have tomorrow first, which is what you would get if you attached the adverb to the CP rather than to the TP: Tomorrow might not be I meeting him, or to have tomorrow last, which is what you would get if you attached the adverb at the end, either to the CP or the TP: Might not be I meeting him tomorrow.

On (ii), there is no call for do-support, any more than in English: Might I not be meeting him tomorrow?

Averages: i) 2.43 (0.47), ii) 2.65 (0.66)



Problem 3. (14 points) Concerning the tree above, on each of the following statements, write T if it is true, or F if it is false.
a. $T$ DP (1) is a Theme.
h. F N moved to $n$ to check a [un*] feature on N .
b. T DP (3) is a pronoun.
i. T DP (1) was Merged with $\mathrm{T}^{\prime}$ to check a $\left[u \mathrm{D}^{*}\right]$ feature.
c. F DP (2) is a Possessor.
j. F $v$ values the case feature of $\mathrm{DP}(1)$ as accusative.
d. F DP (1) c-commands DP (3).
k. T $n$ values the case feature of DP (3) as of.
e. $T$ DP (2) c-commands DP (3).

1. F $v$ was Merged with VP to check a $\left[u \mathrm{~V}^{*}\right]$ feature of $v$.
f. F The verb is unergative.
m. T T values the [ $u \mathrm{Infl}:]$ feature of Pass.
g. F DP (3) is the specifier of NP.
n. $T$ Pass was merged with $v \mathrm{P}$ to satisfy the Hierarchy of Projections.

Average: 11.33 (1.86). There was a problem with (i) in the way that I stated it. I had intended it to be true, because I was considering Move to be an operation containing Merge (so any Move of an XP is also a Merge of that XP). However, a number of people put "false" and noted that their answer was based on the fact that DP (1) underwent Move rather than Merge. Since either answer is reasonable here, everyone got credit for (i).

The ones that threw the most people off were (I), (b), (c), and (j).
(I) takes a bit of careful thought-I included (n) (about the Hierarchy of Projections) in order to kind of make the issue behind (I) salient, but it didn't really help. In the tree, $v$ is Merged with VP in order to satisfy the Hierarchy of Projections, not to check a $\left[u \mathrm{~V}^{*}\right]$ feature of $v$. The $v$ does have a $\left[u \mathrm{~V}^{*}\right]$ feature, but that is what motivates the next step, head-moving the V up to $v$. So, I stand by that answer, although over half the answers I got were "true."

I'm not sure why (b) was such a problem, but a lot of people declined to assert that DP (3) is a pronoun. In the instruction box, it says (just as it did on all the practice finals) that there are no "implicit
triangles" in the tree-meaning, if you see a DP without any internal structure, it is a DP without any internal structure, not a DP with internal structure that I didn't bother to draw. The only DPs without internal structure that we know of are pronouns. I like using pronouns in trees for that very reason, it's easier to draw the trees.
(c) was in fact intended to be tricky-it's surprisingly hard to come up with plausible sounding false statements. DP (2) winds up in the specifier of DP (1) and gets genitive case, so it has the same surface form that a possessor would have. A Possessor is a semantic role, though, a $\theta$-role, it is not a case form. In the tree above, DP (1) is actually an Agent in the genitive case. I included this partly to highlight the form of the DP, that it isn't a possessive construction but rather a deverbal DP (this also connects with $(k)$ as well, the $n$ assigns of-case, though many fewer people had trouble with (k)).
(j) was maybe a little bit tricky. It is certainly the case that in lots of sentences, $v$ assigns accusative case to the Theme. In this particular sentence, though, the Theme moved up to the specifier of TP—and it gets case (nominative) up there. It can't get case twice. The sentence drawn above is passive (there is even an explicit PassP drawn in it), and the $v$ in a passive form doesn't assign accusative case.

Concerning ( f ), the verb is not unergative. It is almost certainly a transitive verb that was passivized, which gives it basically the structure of an unaccusative. But it is not unergative. (h) has the features backwards, it is $n$ that has a $\left[u \mathrm{~N}^{*}\right]$ feature. For (g), DP (3) is the complement of the NP, or the complement of $N$, but it is not the specifier of NP.

Problem 4. (4 points) Come up with an English sentence that the tree for problem 3 could be the structure for.
His taunting of me was witnessed.
This one was harder to find a good sentence for than the structures for some of the previous years' finals. The specifications are: The verb is passive, so the subject is a passivized Theme, and the subject is of the form pronoun's deverbal-noun of pronoun. (As mentioned in the true-false section above, the fact that there were no "implicit triangles" in the tree means that where you have a DP with no internal structure, it is necessarily a pronoun).

Successful examples included: His destruction of me was prevented, My kicking of him was seen, His bribery of them was exposed, His insulting of me was ignored, My inspection of him was disregarded, His loss of her was rued, Her mention(ing) of me was appreciated.

Average: 2.70 (1.12)

Problem 5. ( 9 points; 1.5 per sentence $\mathbf{x} 6$ sentences) For each of the ungrammatical sentences below, indicate what principle(s) of grammar is/are violated (there may be more than one).

- Note: Pay close attention to the indices.
- Note: Assume that the pronunciation matches the features: the problems are in the structures, not in the pronunciation of the features.
- Note: Principles will be one of: wh-island, Principle A, Principle B, Principle C, Hierarchy of Projection, uninterpretable feature unchecked (name the feature).

Overall average for this problem: 6.12 (2.10)
i. ${ }^{*} \mathrm{He}_{i}$ told himself ${ }_{i}$ that people like Stuart ${ }_{i}$.

Principle C. Not Principle A—himself is in the same clause as he, so everything is fine there. But Stuart is c-commanded (and coindexed, hence bound) by both himself and he. And not Principle B—him is unbound, as it should be.
This one should have been straightforward. Points for "Principle C," and points off for anything else.
ii. * What has been Frankie trying to buy?

Unchecked $\left[u D^{*}\right]$ feature on $T$.
Maybe this one was kind of a trick-it looks like it could be an island violation because it is a wh-question, and it looks like the kind of thing that leads to a Hierarchy of Projections violation, but it isn't. It is just that the subject hasn't moved out of the vP. However, I was pleased to see that I didn't wind up tricking many people with this one.
iii. * Pat was persuaded Andy to flee the country.

Unchecked [ucase:] feature on Andy.
Since this is passive (was persuaded), v cannot check case on Andy. Statement (j) of the true/false section was also supposed to highlight this issue.
By-phrases are not obligatory with passives, it's perfectly fine to say: Pat was persuaded to flee the country. However, some people clearly viewed this as being intended to be Pat was persuaded by Andy to flee the country. To be frank, our system doesn't even allow for that-the best we could get would be Pat was by Andy persuaded to flee the country, we have no way for the by-phrase to come between the verb participle and the embedded CP. If by were left out, though, we'd at least have the same problem—no case for Andy. Since nothing requires by, there's no $\left[u \mathrm{P}^{*}\right]$ feature anywhere being left unchecked.
Another thing that I think a few people had in mind was that it was supposed to be Pat was persuading Andy to flee the country, and the [ulnfl:] feature of $v$ got valued wrong. However, I can't really take that as a good answer-the second note in the instructions is that what is wrong here is not in the pronunciation of the features, but something in the structure. I also couldn't really take just "uninterpretable feature unchecked" for full credit, without an indication of what feature it was, though I did give half a point for that.
iv. * Which pumpkin did John ask me who brought to the competition?

Wh-island.
This was straightforward, I think, despite the fact that we didn't have more than a very brief exposure to these in the class. Pretty much everybody got this one.
v. * It seems Mary to be writing a paper.

Unchecked [ucase:] feature on Mary.
Clearly, the sentence is bad, and clearly it could be fixed by making the embedded clause finite, although of course the embedded clause doesn't need to be finite with seems: Mary seems to be writing a paper. So, the issue here is really, what goes wrong if it isn't finite in this case. And it's the case of the embedded subject: non-finite T doesn't check case, and the main clause finite T is already checking the case of it. It's also possible for it to check the EPP feature in the main clause: It seems that Mary is writing a paper.
vi. * The car was not been fixing by Tracy.

Hierarchy of Projections.
Many people got this, but it is surprisingly hard to parse. What we have here is a verb that is passive and progressive, but the auxiliaries are in the wrong order (they are in the order Pass,

Prog, but should have been in the order Prog, Pass: is not being fixed).
(vi) is indeed what you would get if PassP were higher than ProgP. Both have auxiliaries be, PassP passes on the -en ending, and ProgP passes on the -ing ending. So, you get past be -en be -ing fix, which comes out: was been fixing, rather than what we should have: past be -ing be -en fix, which comes out: was being fixed.

