

Due by 6:30pm on Tuesday, April 21. Please email your answers to joseph.pentangelo@csi.cuny.edu.

Phrase Structure Rules

$S \rightarrow NP VP$

$CP \rightarrow C S$

$VP \rightarrow V (PP) (NP) \left\{ \begin{array}{l} (NP) \\ (S) \\ (CP) \end{array} \right\} (AP) (PP^*)$

$NP \rightarrow (\text{det}) (AP^*) N \left\{ \begin{array}{l} (PP^*) \\ (CP) \end{array} \right\}$

$AP \rightarrow (\text{deg}) A$

$PP \rightarrow (\text{mod}) P \left\{ \begin{array}{l} (NP) \\ (PP) \end{array} \right\}$

Hints

Each of the following sentences have at least one embedded sentence. Some have two.

Some sentences contain particle verbs.

There are no ambiguous sentences.

Section 1: Draw a tree for each of the following sentences. Each tree is worth 5 points.

1. Arthur believes that good kings live in mighty castles.
2. The king wonders if monarchy is fair.
3. Arthur said that Merlin told him that the king blew off his responsibilities.
4. John harbors an insane hope that his car is really alive.
5. I heard your claim that Arthur is the true king.
6. My belief that kings are thieves is a matter of opinion.

Section 2: Draw two trees for each of the following sentences, one for surface structure and one for deep structure. Write down which trees show surface structure and which show deep structure. Each tree is worth 5 points. (10 points total for each of the following sentences.)

7. Merlin wonders when Arthur fell asleep.
8. Arthur knows who Mark gave the sword to.
9. Merlin asked who took the sword from Arthur.
10. The king told Merlin what Arthur pulled from the stone.
11. You picked up a briefcase which you found on the floor.
12. Melissa gave a book which she stole to the man whom she loves.

Section 3: Answer the following questions. Each is worth 5 points.

13. Which of the above sentences feature more than one embedded clause?
14. Which of the above sentences feature a CP coming from a subject NP?

Extra Credit: The following is worth 5 points.

15. Write and draw a tree for your own original sentence that features two embedded clauses: one coming from a subject NP, and one coming from a VP.