

# Compiler Construction CSCI-GA.2130-001 Fall 2011 hw5

Assigned We 10/12/2011, due Fr 10/21/2011 at 1pm.

## Reading Assignments

- For lecture on 10/26/2011: Dragon-book 1.6 + 2.7 + 6.5 (30 pages)
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## Homework Assignments

1. Top-down vs. bottom-up parsing (8 = 4 + 4 points).
    - 1a. (4 points) Name an advantage of LL parsers, compared to LR parsers.
    - 1b. (4 points) Name an advantage of LR parsers, compared to LL parsers.
  2. Attributes during parsing (6 points).

Consider the extended code example at the following URL:  
<http://cs.nyu.edu/courses/fall11/CSCI-GA.2130-001/example-ast-gen.tar>  
The actions in the parser grammar `Tack.rats` implement an S-attributed SDD scheme.  
What is the synthesized attribute, and how is it implemented?
  3. Attributes during tree traversal (10 = 5 + 5 points).

Consider the extended code example at the following URL:  
<http://cs.nyu.edu/courses/fall11/CSCI-GA.2130-001/example-ast-gen.tar>  
The visitor in `TreeNormalizer.java` implements an L-attributed SDD scheme.

    - 3a. (5 points) What is the inherited attribute, and how is it implemented?
    - 3b. (5 points) What is the synthesized attribute, and how is it implemented?
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<http://cs.nyu.edu/courses/fall11/CSCI-GA.2130-001/hw5.pdf>

Total points: 24.