

# Lab Six

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## CRAFTING A COMPILER

### EXERCISE 9.2

Assume that we add a new kind of conditional statement to C or Java, the `signtest`. Its structure is:

```
1 signtest (exp) {  
2     neg: stmts  
3     zero: stmts  
4     pos: stmts  
5 }
```

The integer expression `exp` is evaluated. If it is negative, the statements following `neg` are executed. If it is zero, the statements following `zero` are executed. If it is positive, the statements following `pos` are executed.

Show the AST you would use for this construct. Revise the semantic analysis, reachability, and throws visitors for if statements (Section 9.1.2) to handle the `signtest`.