CSCE 531 Spring 2008
Quiz 7
Assigned Wednesday, 07-04-09

The following example shows the application of a code template for a Mini-Triangle program.

```
execute [let const n~7; var i:Integer in i:=n*n]  =

  LOADL 7
  PUSH  1
  LOAD  n
  LOAD  n
  CALL  mult
  STORE i
  POP(0) 2
```

1. Draw an AST for this program. **Answer:** Not shown; the Let-Command node should have two children (a sequential declaration and an assignment command), similarly to the AST of Figure 7.1(a) on p.272 of the textbook.

2. What is the name of the top command in the AST? **Answer:** let-command

3. Why is there a POP instruction at the end of the TAL code? **Answer:** to reclaim memory allocated for the local variables and constants

4. Are special-case templates used in the generation of this code? **Answer:** No. (The known literal constant special-case template could have been used, but it was not.)