
LEVEL 5

Brain hurts from all the
call-stacks ...

Mr. Rabbit!! Pssssssst

[in a blink of an eye, the white
rabbit hops its way towards a
wall of green text ...]

New in Level 5:
Function calls

The functions can now call other functions. A function call is identified with the token **call** and followed by an **expression** that will be resolved to the index of the function that will be called.

The **expression** can be an **integer**, **variable** that contains an integer or **function call** that returns an integer.

A call statement can be used as one of the following cases:

- As a value for another statement (variable creation, variable assignment, print, if condition, return or function call)
- As a separate statement

When a function is called within a function, then the execution continues in the called function.

Once the called function has executed all of the statements (possibly other function calls) or reaches a return statement, the execution continues in the calling function. A function that does not execute a return statement will always return **true** as default returned value.

If the **expression** of a call statement **cannot be** resolved to an integer that corresponds to a **valid index** of a function, it will produce an **error** and terminate the program.

In this level all variable names used in functions will be unique.

Considering these changes execute all the functions like in the previous levels.

The input format is identical to last level

	Input	Output
Example1	23 start var thisis false call 2 var x 3 if call x print call 4 end else print hi end end start print functiontwo end start return true end start print thisis end start call string end	functiontwothisistrue functiontwo thisis ERROR Hint: notice that function 1 produces the output ‘functiontwothisistrue’. The true in the end is because a function without a return value returns true. Hint 2: even though function 1 has a variable of the name thisis, when called function 4 prints the string thisis because the variable only exists in function 1

The input format is identical to last level

	Input	Output
Example2	12 start print call call call call call 3 end start call call 4 end start return 3 end start print noreturn end	3 ERROR noreturn


GOOD
LUCK!