

CS 3723: Programming Languages

Apr 4, 2012

You Name:

1. A function call is called a *tail call* if
 - (a) The caller contains no more computation after the call.
 - (b) The callee does not contain any additional function calls.
2. Which of the following correctly explains why tail recursive functions are equivalent to loops?
 - (a) Because no operation is required after the recursive function call, the activation record of the caller can be popped off the stack before making the recursive call; that is, the callee can reuse/modify the activation record of the caller.
 - (b) During a recursive function call, the activation record of the callee has identical structure as that of the caller. So the callee can reuse/modify the AR of the caller and then restore it after the call finishes.