Parameters are automatic storage

They are created by a caller just before calling the function, but they are part of the stack frame of the function.

They are discarded just after the function finishes.

The compiler can use the stack to save (and restore) any information that it needs to save/restore, such as…

Callee-saved registers at the start and end of the function (none in LC-3)

Caller-saved registers before doing a function call.

For example, if compiler had an important value in R0 but needed to call another subroutine, it would

1. Push R0 onto stack
2. Push parameters onto stack
3. Call subroutine
4. Read return value
5. Pop parameters and return value (destroy the params)
6. Pop R0 off of stack