

EE309 assignment 3, Sheel Shah, 19D070052

- a. The SP has been pushed thrice. So the SP is now at DF1A, when the function is called. The function then does some more pushing too.

As the stack is pre-decremented, we have the following variables/registers at the following locations:

Variable	Stack Address
S2 start address	DF1E and DF1F
S1 start address	DF1C and DF1D
N	DF1A and DF1B
Address to return to	DF18 and DF19
BP	DF16 and DF17
CX	DF14 and DF15
SI	DF12 and DF13
DI	DF10 and DF11

- b. Code has been attached.
- c. We use "RET 6", and this raises the stack pointer by 6 when returning. Hence the 3 arguments that were passed have been essentially removed. (new pushes will overwrite them). If a function had variable number of arguments, we wouldn't know beforehand how many bytes the stack pointer should be raised by, and since "RET" does not allow non-constant expressions as the second argument, we can't perform a similar execution.