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CS 261
Lab 7

1.

Registers before calling sum

%rsi - 4
%rdi - 18
%r8 - 8
%r9 - 1
%r10 - a000a000a000
%rsp - 1f8
%rax, %rcx, %rdx, %rbx, %rbp, %r11, %r12, %r13, %r14 - all blank

Registers after returning from sum

%rax - abcdabcdabcd
%rcx - blank
%rdx - blank
%rbx - blank
%rsp - 1f8
%rbp - blank
%rsi - 0
%rdi - 38
%r8 - 8
%r9 - 1
%r10 - a000a000a000
%r11 - blank
%r12 - blank
%r13 - blank
%r14 - blank

Count and Start are passed through from registers %r8 and %r9

The main function executes at 0xa for virtual address, which corresponds to
8038000000000000.

The stack begins at 0x0 for virtual address, which corresponds to
30f40002000000000000.

It takes 33 steps to completely finish and end terminating the program.

The value of PC when the program finishes is 15.

2.

The end result will be stored in dstE since the summation of valA and valB are moved to dstE.

valC in non-calculating assembly lines points to the next virtual address that we will go to. In calculating assembly lines, it is 0.

Addq at address 0x83 is run 4 times.

Running ssim with -g flag will open 3 windows.

Return addresses are pushed and popped onto the stack when functions are called and returned, so 2.