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CS 224   Midterm 2

1. A. data0: 0x0a   data1: 0x0d   data2: 0x03.

   B. | SF 0 | ZF 1 | OF 0 |

   C. rax: 8   rdx: 13   rcx: 0
       rsi: 1   rdi: 3   rbx: 70
       rsp: f8   r8: 0   r10: 0

   D. 0x005d

2. (fun1)   3. (fun2)

4. for (i = 0; i < x-y; i++) {
        result = result + x - i;
    }

5. irmovq 0x2 %rcx   b. 3
   a. irmovq 0xffffffffffffffff, %rbx
      label:
      xorq %rcx, %rax
      addq %rbx, %rcx   6.
      nop
      jne label
      halt

7.	Fetch	icode: ifun $\leftarrow$ M. [PC]
		rA:rB $\leftarrow$ M.[PC+1]
		ValP $\leftarrow$ PC+2
	Decode	ValA $\leftarrow$ R[rA]
		ValB $\leftarrow$ R[rB]
	Execute	ValE $\leftarrow$ valB $-$ ValA
		Set CC
	Memory	
	Writeback	
	PCupdate	PC $\leftarrow$ ValP

8.	Fetch	icode: ifun $\leftarrow$ M. [PC]
		rA:rB $\leftarrow$ M.[PC+1]
		ValC $\leftarrow$ M_8 [PC+2]
		ValP $\leftarrow$ PC+10
	Decode	
		ValA $\leftarrow$ R[rA]
		ValB $\leftarrow$ R[rB]
	Execute	ValE $\leftarrow$ ValB $+$ ValC
	Memory	
	Writeback	R[rA] $\leftarrow$ ValE
	PCupdate	PC $\leftarrow$ ValP