

Assignment 3 – Question 1

Table 0

Memory Address	Value	Register	Value
0x230	0x23	%rdi	0x230
0x234	0x00	%rsi	0x234
0x235	0x01	%rcx	0x4
0x23A	0xed	%rax	0x1
0x240	0xff		

Table 1

Operand	Operand Value <i>expressed in hexadecimal</i>	Operand Form <i>Choices are: Immediate, Register or one of the 9 Memory Addressing Modes</i>
%rsi	0x234	Register
(%rdi)	0x23	Indirect memory addressing mode
\$0x23A	0x23A	Immediate
0x240	0xff	Absolute memory addressing mode
10(%rdi)	0xed	“Base + displacement” memory addressing mode
560(%rcx,%rax)	0x01	Indexed memory addressing mode
-550(, %rdi, 2)	0xed	Scaled indexed memory addressing mode
0x6(%rdi, %rax, 4)	0xed	Scaled indexed memory addressing mode

Table 2

Operand	Value <i>0x00 is a value, not a memory address</i>	Operand Form <i>Choices are: Immediate, Register or one of the 9 Memory Addressing Modes</i>
0x234	0x00	Absolute memory addressing mode
2(%rdi, %rax, 2)	0x00	Scaled indexed memory addressing mode
(%rdi,%rcx)	0x00	Indexed memory addressing mode