

Assignment 3 – Question 1

Table 0

Memory Address	Value
0x230	0x23
0x234	0x00
0x235	0x01
0x23A	0xed
0x240	0xff

Register	Value
%rdi	0x230
%rsi	0x234
%rcx	0x4
%rax	0x1

Table 1

Operand	Operand Value expressed in hexadecimal	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 value
0x240	0xff	Absolute direct memory addressing mode
10(%rdi)	0xED	“Base + displacement” memory addressing mode
560(%rcx,%rax)	0x01	Indexed Memory Addressing mode (base+index)
-550(, %rdi, 2)	0xed	Scaled Indexed (displacement + index x scale)

<code>0x6(%rdi, %rax, 4)</code>	<code>0xed</code>	Scaled Indexed (base + scaled index + displacement)
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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>
<code>0x234</code>	<code>0x00</code>	Absolute memory addressing mode
<code>(%rdi, %rax, 4)</code>	<code>0x00</code>	Scaled indexed memory addressing mode
<code>(%rdi, %rcx)</code>	<code>0x00</code>	Indexed memory addressing mode