**Assignment 5 – Question 1**

Table 1

|  |  |
| --- | --- |
| **x86-64 instruction**  **(represented here as an assembly instruction as opposed to a machine instruction)** | **The size (in bytes) of the corresponding x86-64 machine instruction** |
| xorq %rax, %rax |  |
| xorl %eax, %eax |  |
| movq $0, %rax |  |
| movl $0, %eax |  |
| subl %eax, %eax |  |
| imull $0, %eax |  |
| andl $0, %eax |  |

Table 2

|  |  |
| --- | --- |
| **x86-64 instruction**  **(represented here as an assembly instruction as opposed to a machine instruction)** | **The size (in bytes) of the corresponding x86-64 machine instruction** |
| addl $1, %eax |  |
| leal 1(%eax), %eax |  |
| incl %eax |  |
| subl $-1, %eax |  |

Table 3

|  |  |
| --- | --- |
| **x86-64 instruction**  **(represented here as an assembly instruction as opposed to a machine instruction)** | **The size (in bytes) of the corresponding x86-64 machine instruction** |
| addl $8, %eax |  |
| leal 8(%eax), %eax |  |

Table 4

|  |  |
| --- | --- |
| **x86-64 instruction**  **(represented here as an assembly instruction as opposed to a machine instruction)** | **The size (in bytes) of the corresponding x86-64 machine instruction** |
| subq $8, %rsp |  |
| movq %rdi, (%rsp) |  |
| pushq %rdi |  |

Table 5

|  |  |
| --- | --- |
| **x86-64 instruction**  **(represented here as an assembly instruction as opposed to a machine instruction)** | **The size (in bytes) of the corresponding x86-64 machine instruction** |
| movq (%rsp), %rsi |  |
| addq $8, %rsp |  |
| popq %rsi |  |