

CMSC 313 Spring 2024

Quiz 5 Practice

Full Name _____ Student ID _____

Questions on this quiz are either short response of true or false. Please print your answers clearly.

Question 1. You are given the following x86-64 assembly code:

```
section .data
    arr db 1,1,1,1,1,1,1,1    ;0x0000 0000 address
    len equ $ - arr
    gap dq 2                  ;0x0000 0008 address
section .text
global main
main:
    mov al, 1
    mov rbx, [gap]
    mov rcx, 0
loop:  imul rax, rbx
       mov [arr+rcx], BYTE al
       add cl, 2
       cmp cl, 6
       jl loop

       mov eax, 60
       mov edi, 0
       syscall
```

a. What are the values stored at address 0x0000 0000 through 0x0000 0007

address	value
0x0000 0000	2
0x0000 0001	1
0x0000 0002	4
0x0000 0003	1
0x0000 0004	8
0x0000 0005	1
0x0000 0006	1
0x0000 0007	1