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COSC240
Assignment 2

REPORT.PDF

values = [1, 8, 7, 8, 5, 1, 7, 9, 4]
Vals was determined by using gdb and noting the number that was being used in the eax register. I set a breakpoint at the beginning of the loop and then ran the program. I then printed the value in the eax register and noted it down. I then continued the program and repeated the process until I had all the values.

VALUE_MULTIPLIER = 8
The multiplier was determined by seeing that the value in the eax register was being bitshifted to the left by 3. This is equivalent to multiplying by 8. I confirmed this by printing the value in the eax register after the bitshift.

```
shl $0x3,%eax
```

VALUE_ADDED = 6
The addition was determined by seeing that the value in the eax register was being added by 0x6, which is 6 in decimal. I confirmed this by printing the value in the eax register after the addition.

```
add $0x6,%eax
```

VALUES_SIZE = 9
The length was first determined by seeing that the rbp-0x4 was being compared to 0x8. It was then given a command to jump if the comparison was less than or equal to 0x8. I confirmed this by iterating through the loop and noting the number of iterations it took to exit the loop. The loop exited after 9 iterations which lines up with the comparison of rbp-0x4 to 0x8.

```
cmpl $0x8,-0x4(%rbp)
jle 0x401150 <main+24>
```