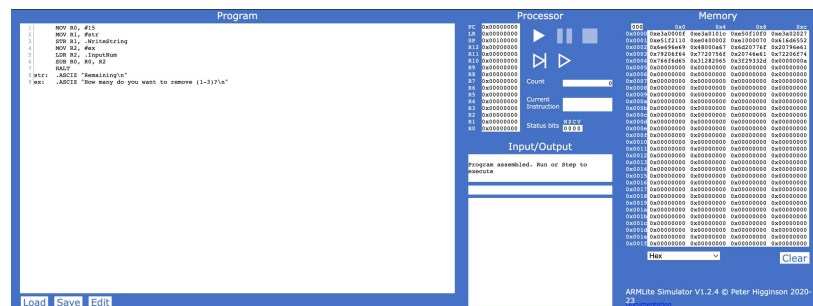Student's ID: 104209393
Student's name: Ai Vi Tran

8.1:
```
 1|    MOV R0, #15
 2|Loop:
 3|    STR R0, .WriteSignedNum
 4|    MOV R1, #str
 5|    STR R1, .WriteString
 6|    MOV R2, #ex
 7|    LDR R2, .InputNum
 8|    SUB R0, R0, R2
 9|    B Loop
10|    HALT
11|str:  .ASCIZ "Remaining\n"
12|ex:   .ASCIZ "How many do you want to remove (1-3)?\n"
```
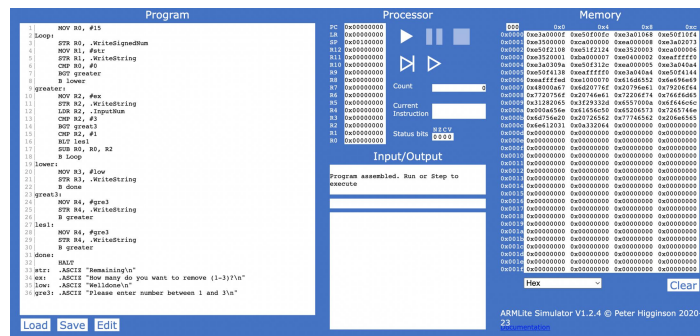

8.2:
```
 1|    MOV R0, #15
 2|Loop:
 3|    STR R0, .WriteSignedNum
 4|    MOV R1, #str
 5|    STR R1, .WriteString
 6|    CMP R0, #0
 7|    BGT greater
 8|    B lower
 9|greater:
10|    MOV R2, #ex
11|    STR R2, .WriteString
12|    LDR R2, .InputNum
13|    CMP R2, #3
14|    BGT great3
15|    CMP R2, #1
16|    BLT les1
17|    SUB R0, R0, R2
18|    B Loop
19|lower:
20|    MOV R3, #low
21|    STR R3, .WriteString
22|    B done
23|great3:
24|    MOV R4, #gre3
25|    STR R4, .WriteString
26|    B greater
27|les1:
28|    MOV R4, #gre3
29|    STR R4, .WriteString
30|    B greater
31|done:
32|    HALT
```

33|str: .ASCIZ "Remaining\n"
34|ex: .ASCIZ "How many do you want to remove (1-3)?\n"
35|low: .ASCIZ "Welldone\n"
36|gre3: .ASCIZ "Please enter number between 1 and 3\n"

8.2.2: Z and N are the two assembly instructions used to create a branch in this condition.