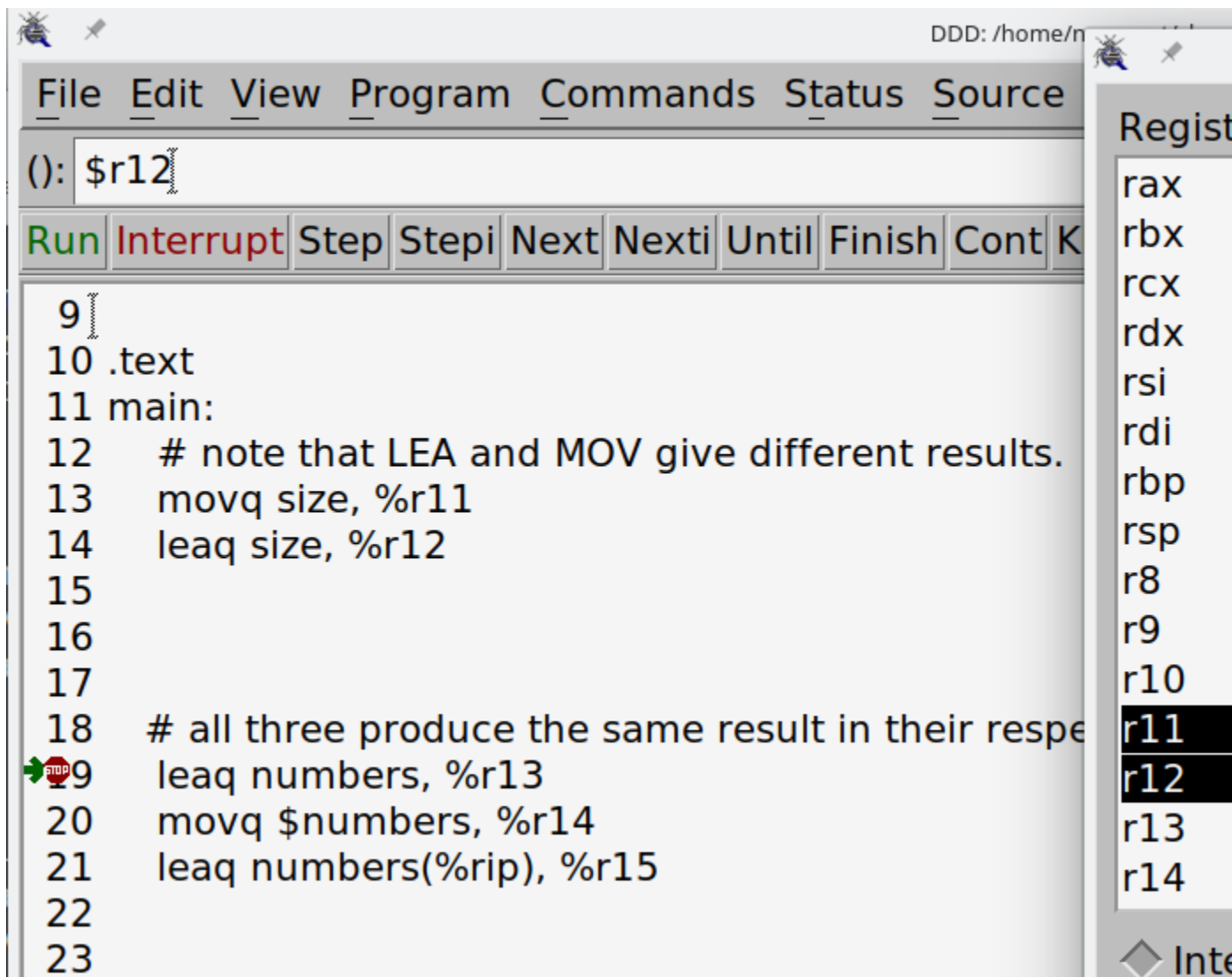## Unit 09_010 – LEA

1. What does LEA stand for?

2. How does the SYNTAX of the LEA instruction compare to the SYNTAX of the MOV instruction?

3. How does the MEANING of the LEA instruction compare to the MEANING of the MOV instruction?

4. The following image is from the ddd debugger. It shows the memory contents after lines 13 and 14 of the code were executed. Why are the contents of r11 and r12 different?

```
                                          DDD: /home/n

File  Edit  View  Program  Commands  Status  Source
                                              Regist
(): $r12
                                              rax
Run Interrupt Step Stepi Next Nexti Until Finish Cont K   rbx
                                              rcx
  9                                           rdx
10 .text                                      rsi
11 main:                                      rdi
12      # note that LEA and MOV give different results.   rbp
13      movq size, %r11                       rsp
14      leaq size, %r12                       r8
15                                            r9
16                                            r10
17                                            r11
18      # all three produce the same result in their respe   r12
19      leaq numbers, %r13                    r13
20      movq $numbers, %r14                   r14
21      leaq numbers(%rip), %r15
22                                            Inte
23
```

_____

If you have any lingering questions or problems, please write them here or see me.