

Source File: lab11.asm
Input: none
Output: Standard Output
Value: 1

Modify Lab 10 to use named constants for the addends instead of immediate operands. Create four doublewords in the .data section to represent the addends. Use only the eax register. Show the contents of the registers after each step in the calculation. Your program should adhere to ordinary rules of algebraic precedence and associativity. Add an identification section as shown below to the top of your source file.

```
; Your name
; CS 3304
; Lab 11
```

A sample execution sequence is shown in Figure 1. To use the Makefile as distributed in class, add a target of lab11 to targetsAsmLanguage.

```

1 newuser@csunix ~/3304/11> cp /usr/local/3304/src/Makefile .
2 newuser@csunix ~/3304/11> touch lab11.asm
3 newuser@csunix ~/3304/11> make
4 nasm -f elf32 -l lab11.lst -o lab11.o lab11.asm -I/usr/local/3304/include/ -I.
5 ld -m elf_i386 --dynamic-linker /lib/ld-linux.so.2 -o lab11 lab11.o \
6 /usr/local/3304/src/Along32.o -lc
7 newuser@csunix ~/3304/11> ./lab11
8
9     EAX=00000000 EBX=F77D0FBC ECX=F77CABBF EDX=F77BE480
10    ESI=FF9A18BC EDI=080481B0 EBP=00000000 ESP=FF9A18B0
11    EIP=080481B5 EFL=00000282 CF=0 SF=1 ZF=0 OF=0 AF=0 PF=0
12
13
14    EAX=00001000 EBX=F77D0FBC ECX=F77CABBF EDX=F77BE480
15    ESI=FF9A18BC EDI=080481B0 EBP=00000000 ESP=FF9A18B0
16    EIP=080481BF EFL=00000282 CF=0 SF=1 ZF=0 OF=0 AF=0 PF=0
17
18
19    EAX=00001200 EBX=F77D0FBC ECX=F77CABBF EDX=F77BE480
20    ESI=FF9A18BC EDI=080481B0 EBP=00000000 ESP=FF9A18B0
21    EIP=080481CA EFL=00000206 CF=0 SF=0 ZF=0 OF=0 AF=0 PF=1
22
23
24    EAX=00001208 EBX=F77D0FBC ECX=F77CABBF EDX=F77BE480
25    ESI=FF9A18BC EDI=080481B0 EBP=00000000 ESP=FF9A18B0
26    EIP=080481D5 EFL=00000202 CF=0 SF=0 ZF=0 OF=0 AF=0 PF=0
27
28
29    EAX=000015F0 EBX=F77D0FBC ECX=F77CABBF EDX=F77BE480
30    ESI=FF9A18BC EDI=080481B0 EBP=00000000 ESP=FF9A18B0
31    EIP=080481E0 EFL=00000216 CF=0 SF=0 ZF=0 OF=0 AF=1 PF=1
32
33 newuser@csunix ~/3304/11>
```

Figure 1. Commands to Assemble, Link, & Run Lab 11