Source File: `lab21.asm`
Input: Standard Input
Output: Standard Output
Value: 2

Write a program that will read a value for N from standard input. Let N be an uninitialized doubleword. Then use a `loop` to accept N doublewords from standard input. Push each of the values to the system stack. Once all of the values have been input, use a second `loop` to display the original input values in reverse order. Place the original values from the system stack one at a time in the `eax` register and then dump the registers. Add an identification section as shown below to the top of your source file.

```
; Your name
; CS 3304
; Lab 21
```

A sample execution sequence is shown in Figure 1. To use the `Makefile` as distributed in class, add a target of `lab21` to `targetsAsmLanguage`.

```
newuser@csunix ~/3304/21> cp /usr/local/3304/data/21/* .
newuser@csunix ~/3304/21> cp /usr/local/3304/src/Makefile .
newuser@csunix ~/3304/21> touch lab21.asm
newuser@csunix ~/3304/21> cat 01.dat
5
-2147483648
-1
0
1
2147483647
newuser@csunix ~/3304/21> make lab21
nasm -f elf32  -l lab21.lst -o lab21.o lab21.asm -I/usr/local/3304/include/ -I.
ld -m elf_i386 --dynamic-linker /lib/ld-linux.so.2 -o lab21 lab21.o \
/usr/local/3304/src/Along32.o -lc
newuser@csunix ~/3304/21> ../irvine_test.sh lab21 01.dat

  EAX=7FFFFFFF  EBX=00000001  ECX=00000005  EDX=F77DA480
  ESI=FFD30E9C  EDI=080481B0  EBP=00000000  ESP=FFD30EA0
  EIP=080481FB  EFL=00000292  CF=0  SF=1  ZF=0  OF=0  AF=1  PF=0


  EAX=00000001  EBX=00000001  ECX=00000004  EDX=F77DA480
  ESI=FFD30E9C  EDI=080481B0  EBP=00000000  ESP=FFD30EA4
  EIP=080481FB  EFL=00000292  CF=0  SF=1  ZF=0  OF=0  AF=1  PF=0


  EAX=00000000  EBX=00000001  ECX=00000003  EDX=F77DA480
  ESI=FFD30E9C  EDI=080481B0  EBP=00000000  ESP=FFD30EA8
  EIP=080481FB  EFL=00000292  CF=0  SF=1  ZF=0  OF=0  AF=1  PF=0


  EAX=FFFFFFFF  EBX=00000001  ECX=00000002  EDX=F77DA480
  ESI=FFD30E9C  EDI=080481B0  EBP=00000000  ESP=FFD30EAC
  EIP=080481FB  EFL=00000292  CF=0  SF=1  ZF=0  OF=0  AF=1  PF=0


```

Figure 1. Commands to Assemble, Link, & Run Lab 21 (Part 1 of 2)

```
37    EAX=80000000  EBX=00000001  ECX=00000001  EDX=F77DA480
38    ESI=FFD30E9C  EDI=080481B0  EBP=00000000  ESP=FFD30EB0
39    EIP=080481FB  EFL=00000292  CF=0  SF=1  ZF=0  OF=0  AF=1  PF=0
40
41  newuser@csunix ~/3304/21>
```

Figure 1. Commands to Assemble, Link, & Run Lab 21 (Part 2 of 2)