

Source File: lab24.asm
Input: Standard Input
Output: Standard Output
Value: 1

Write an assembly language program that will read a header *H*. Then read *H* additional signed 32-bit integers. For each input integer determine if it is negative. Your program should display the integer to standard output along with a descriptive literal message. The exact form of the output is shown below. Note the inclusion of an identification line at the beginning of the output.

A sample execution sequence is shown in Figure 1. To use the Makefile as distributed in class, add a target of lab24 to targetsAsmLanguage.

```
1 newuser@csunix ~/3304/24> cp /usr/local/3304/data/24/* .
2 newuser@csunix ~/3304/24> cp /usr/local/3304/src/Makefile .
3 newuser@csunix ~/3304/24> touch lab24.asm
4 newuser@csunix ~/3304/24> make lab24
5 nasm -f elf32 -l lab24.lst -o lab24.o lab24.asm -I/usr/local/3304/include/ -I.
6 ld -m elf_i386 --dynamic-linker /lib/ld-linux.so.2 -o lab24 lab24.o \
7 /usr/local/3304/src/Along32.o -lc
8 newuser@csunix ~/3304/24> ../irvine_test.sh lab24 01.dat
9 Your Name - CS 3304 - Lab 24
10
11 -2147483648 is negative
12 -2147483647 is negative
13 -2 is negative
14 -1 is negative
15 +0 is not negative
16 +1 is not negative
17 +2 is not negative
18 +2147483646 is not negative
19 +2147483647 is not negative
20 newuser@csunix ~/3304/24> ../irvine_test.sh lab24 01.dat > my.out
21 newuser@csunix ~/3304/24> diff 01.out my.out
22 newuser@csunix ~/3304/24>
```

Figure 1. Commands to Assemble, Link, & Run Lab 24