

Source File: lab25.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 divisible by 4. 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 lab25 to targetsAsmLanguage.

```
1 newuser@csunix ~/3304/25> cp /usr/local/3304/data/25/* .
2 newuser@csunix ~/3304/25> cp /usr/local/3304/src/Makefile .
3 newuser@csunix ~/3304/25> touch lab25.asm
4 newuser@csunix ~/3304/25> make lab25
5 nasm -f elf32 -l lab25.lst -o lab25.o lab25.asm -I/usr/local/3304/include/ -I.
6 ld -m elf_i386 --dynamic-linker /lib/ld-linux.so.2 -o lab25 lab25.o \
7 /usr/local/3304/src/Along32.o -lc
8 newuser@csunix ~/3304/25> ../irvine_test.sh lab25 01.dat
9 Your Name - CS 3304 - Lab 25
10
11 +0 is divisible by 4
12 +4 is divisible by 4
13 -4 is divisible by 4
14 -2147483648 is divisible by 4
15 +2147483644 is divisible by 4
16 +2147483647 is not divisible by 4
17 +2 is not divisible by 4
18 -2 is not divisible by 4
19 newuser@csunix ~/3304/25> ../irvine_test.sh lab25 01.dat > my.out
20 newuser@csunix ~/3304/25> diff 01.out my.out
21 newuser@csunix ~/3304/25>
```

Figure 1. Commands to Assemble, Link, & Run Lab 25