

Source File: ~/1337/45/lab45. (C|CPP|cpp|c++|cc|cxx|cp)
Input: Standard Input
Output: Standard Output
Value: 1

Write a program that reads from standard input character-by-character and determines the number of lines in the input. The input is of unknown length; however, input can terminate when the end-of-data marker is encountered.

A sample execution sequence is shown in Figure 1. To use the Makefile as distributed in class, add a target of lab45 to targets1srcfile.

```
1 newuser@csunix ~> cd 1337/
2 newuser@csunix ~/1337> mkdir 45
3 newuser@csunix ~/1337> cd 45
4 newuser@csunix ~/1337/45> cp /usr/local/1337/data/45/* .
5 newuser@csunix ~/1337/45> cp /usr/local/1337/src/Makefile .
6 newuser@csunix ~/1337/45> touch lab45.cpp
7 newuser@csunix ~/1337/45> # Edit Makefile and lab45.cpp
8 newuser@csunix ~/1337/45> make lab45
9 g++ -g -Wall -std=c++11 -c lab45.cpp -I/usr/local/1337/include -I.
10 g++ -o lab45 lab45.o -L/usr/local/1337/lib -lm -lbits
11 newuser@csunix ~/1337/45> wc -l *dat
12      5 01.dat
13     78 03.dat
14      0 06.dat
15      4 07.dat
16     87 total
17 newuser@csunix ~/1337/45> cat 01.dat
18 1992 1993 1994
19 This is a test of your word analysis program.
20 How many words did you find that begin with a vowel?
21 WHAT ABOUT STARTING WITH AN S OR ENDING IN AN s?
22 Mary said, "I like C++."
23 newuser@csunix ~/1337/45> cat 01.dat | ./lab45
24 Your Name - CS 1337 - Lab 45
25
26 Number of lines = 5
27 newuser@csunix ~/1337/45> cat 01.dat | ./lab45 > my.out
28 newuser@csunix ~/1337/45> diff 01.out my.out
29 newuser@csunix ~/1337/45> cat 03.dat | ./lab45 > my.out
30 newuser@csunix ~/1337/45> diff 03.out my.out
31 newuser@csunix ~/1337/45> cat 06.dat | ./lab45 > my.out
32 newuser@csunix ~/1337/45> diff 06.out my.out
33 newuser@csunix ~/1337/45> cat 07.dat | ./lab45 > my.out
34 newuser@csunix ~/1337/45> diff 07.out my.out
35 newuser@csunix ~/1337/45>
```

Figure 1. Commands to Compile, Link, & Run Lab 45