

1. Write a lex program that expects input that consists of identifiers, integers, blanks, tabs (`\t`) and newlines (`\n`). An identifier is a letter followed by 0 or more letters or digits. Letters can be upper or lower case. An integer is a digit followed by 0 or more digits. The program should count the number of identifiers, integers and lines in the input. The numbers of identifiers, integers and lines should be output to stdout as shown below. Assume the input comes from stdin (the lex default).

For example if the input file contains the following (where the line beginning with x is the first line in the file and the line beginning with Zelda is the last line in the file)

```
x 72 83 sue 9
73 Max      x10
```

```
zzz  92301 W50D99
Zelda 34    scoTT
```

The output should be the following

The number of identifiers is 8

The number of integers is 6

The number of lines is 5

You can assume there are not illegal characters in the input.