```
    /*
       Name: Zachary Neeley
       Class: cs370
       Date: 1/18/19
       Lab: wordlength
       Description: This lab will use LEX to read input counting the number of words in
                taken though input and will also count the numbers in the input using LEX to handle the
counting.

                Input: Any file given to the program with words and numbers to count.

                Output: Using console this program will print out the lenth of the
                     words and how many time a word of that length occured. Also
                     the program will print out the amount of numbers in the file.
    */
        int lgths[100];
        int nums = 0;      // Int used to store the amount of numbers in the input.
%%
[a-zA-Z]+       {lgths[yyleng]++;}
[0-9]+    { /* Add 1 for each number found. */ nums++;}
.         |
\n        ;
%%
yywrap()
{
        int i;
        printf("Length  No. words\n");
        for (i=1; i<100; i++) {
                if (lgths[i] > 0) {
                        printf("%5d%10d\n",i,lgths[i]);
                }

        }

        // Print the amount of numbers in the input.
        printf("Times a number occured: %5d\n",nums);
        return(1);
}

main()
{  yylex();

}
```

```
# Name: Zachary Neeley
# Lab: wordlength
# Date: 1/18/19
# Description: Using lex the makefile will compile wordlengthlab1.l to create the lex.yy.c
#              then using the gcc compiler create an wordlength program.
#

all:
        lex wordlengthlab1.l
        gcc -o wordlength lex.yy.c
```