

CODE

```
%{  
#include <stdio.h>  
double a, b;  
char op;  
%}  
  
%%  
[0-9]+(\.[0-9]+)?[ \t]*[\+\-\*/][ \t]*[0-9]+(\.[0-9]+)? {  
    if (sscanf(yytext, "%lf %c %lf", &a, &op, &b) != 3) {  
        sscanf(yytext, "%lf%c%lf", &a, &op, &b);  
    }  
    switch(op) {  
        case '+': printf("%g\n", a + b); break;  
        case '-': printf("%g\n", a - b); break;  
        case '*': printf("%g\n", a * b); break;  
        case '/':  
            if (b == 0) printf("Error: Division by zero\n");  
            else printf("%g\n", a / b);  
            break;  
    }  
}  
.|\n      ;  
%%  
  
int yywrap(){ return 1; }  
  
int main() {  
    printf("Enter expression (e.g. 12+5, 7*8, 10/2): ");  
    yylex();  
    return 0;  
}
```

SCREENSHOT

The screenshot shows a Windows Command Prompt window titled 'C:\Windows\System32\cmd.e'. The command history and output are as follows:

```
C:\Compiler>set path=C:\Program Files (x86)\GnuWin32\bin
C:\Compiler>flex EXP_35.l
C:\Compiler>set path=C:\Program Files\CodeBlocks\MinGW\bin
C:\Compiler>gcc lex.yy.c
C:\Compiler>a.exe
Enter expression (e.g. 12+5, 7*8, 10/2): 4+7
11
10/2
5
^Z
C:\Compiler>
```