

```
% {  
#include "y.tab.h"  
#include<math.h>  
% }
```

```
NUMBER [0-9]+|([0-9]*" . "[0-9]+)
```

```
% %  
{NUMBER} {yylval.dval=atof(yytext);  
return NUMBER;}
```

```
[\t]+;  
\n|. return yytext[0];  
% %
```

```
% {  
#include "y.tab.h"  
#include<stdio.h>  
#include<math.h>  
% }
```

```
% {  
int yylex();  
void yyerror(const char *s);  
% }
```

```
%union
```

```
{
```

```
double dval;
```

```
}
```

```
%token <dval> NUMBER
```

```
%left '+' '-'
```

```
%left '*' '/'
```

```
%type <dval> E
```

```
%%
```

```
SL : S '\n';
```

```
S : E {printf("=%f\n",$1);};
```

```
E : E '+' E{ $$=$1+$3;} | E '-' E{ $$=$1-$3;} | E '*' E{ $$=$1*$3;} | E '/' E{if($3==0)
```

```
printf("Error Divide By Zero");
```

```
else
```

```
 $$=$1/$3;
```

```
printf("Division is");} | NUMBER { $$=$1;};
```

```
%%
```

```
extern FILE*yyin;
```

```
int main()
```

```
{
```

```
do
```

```
{
```

```
    yyparse();
```

```
    }while(!feof(yyin));
```

```
}
```

```
yyerror(char*a)
```

```
{
```

```
    fprintf(stderr,"parse error");
```

```
}
```

```
/*
```

```
stud@stud-OptiPlex-380:~/Desktop$ lex ass6.l
```

```
stud@stud-OptiPlex-380:~/Desktop$ yacc -d cal.y
```

```
stud@stud-OptiPlex-380:~/Desktop$ gcc y.tab.c lex.yy.c -ll -lm
```

```
stud@stud-OptiPlex-380:~/Desktop$ ./a.out
```

```
2*3
```

```
=6.000000
```

```
*/
```