

PROGRAM:**validexp.l:**

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

%%
[a-zA-Z]+ return VARIABLE;
[0-9]+ return NUMBER;
[\t] ;
[\n] return 0;
. return yytext[0];
%%
int yywrap()
{
return 1;
}
```

validexp.y:

```
% {
#include<stdio.h>
% }
%token NUMBER
%token VARIABLE

%left '+' '-'
%left '*' '/' '%'
%left '(' ')'

%%

S: VARIABLE='E' {
    printf("\nEntered arithmetic expression is Valid\n\n");
    return 0;
}
E:E+'E'
|E-'E'
|E'*E
|E'/E
|E'%E
|('E')
|NUMBER
|VARIABLE
;
```

```
%%
```

```
void main()
{
    printf("\nEnter Any Arithmetic Expression which can have operations Addition,
Subtraction, Multiplication, Divison, Modulus and Round brackets:\n");
    yyparse();
}

void yyerror()
{
    printf("\nEnter arithmetic expression is Invalid\n\n");
}

}
```

OUTPUT:

```
root@localhost-live 210701287# vi ex5.c
[root@localhost-live 210701287]# vi ex5.1
[root@localhost-live 210701287]# vi ex5.y
[root@localhost-live 210701287]# lex ex5.1
[root@localhost-live 210701287]# yacc -d ex5-y
[root@localhost-live 210701287]# cc lex-yy. y. tab.c
[root@localhost-live 210701287]# ./a.out

Enter Any Arithmetic Expression which can have operations Addition, Subtraction, Multiplication, Divison, Modulus and Round brackets:
14+27

Entered arithmetic expression is Invalid

[root@localhost-live 210701287]# ./a.out

Enter Any Arithmetic Expression which can have operations Addition, Subtraction, Multiplication, Divison, Modulus and Round brackets:
a=2*3

Entered arithmetic expression is Valid
```

RESULT: