```
1    %{
2    #include <stdio.h>
3    #include<ctype.h>
4    int yylex();
5    int yyerror();
6    int flag=0;
7    %}
8
9    %token NUMBER
10   %left '+' '-'
11   %left '*' '/'
12   %left UMINUS
13
14   %%
15
16   input: /* empty */
17         | input line
18         ;
19
20   line: '\n'
21       | exp '\n' { printf("Result = %d\n", $$); return 0; };
22       ;
23
24   exp: NUMBER
25       | exp '+' exp  { $$ = $1 + $3; }
26       | exp '-' exp  { $$ = $1 - $3; }
27       | exp '*' exp  { $$ = $1 * $3; }
28       | exp '/' exp  { $$ = $1 / $3; }
29       | '-' exp %prec UMINUS { $$ = -$2; }
30       | '(' exp ')'  { $$ = $2; }
31       ;
32   %%
33
34   int main()
35   {
36       printf("Kindly enter expression: ");
37       yyparse();
38       if(flag==0)
39           printf("Entered arithmetic expression is Valid\n");
40   }
41
42   int yyerror(char *s)
43   {
44       printf("Entered arithmetic expression is Invalid\n");
45       flag=1;
46   }
47
48   int yylex()
49   {
50       int c = getchar();
51       if (c == EOF)
52           return 0;
53       if (isdigit(c)) {
54           ungetc(c, stdin);
55           scanf("%d", &yylval);
56           return NUMBER;
57       }
58       return c;
59   }
```