%{

#include <stdio.h>

#include <stdlib.h>

#include <ctype.h>

// Function prototypes

int yylex(void);

void yyerror(const char \*);

// Define YYSTYPE as a double

#define YYSTYPE double

%}

%token NUM

%left '+' '-'

%left '\*' '/'

%%

expression:

expr

{

printf("Result: %.2f\n", $1);

return 0;

}

;

expr: expr '+' expr { $$ = $1 + $3; }

| expr '-' expr { $$ = $1 - $3; }

| expr '\*' expr { $$ = $1 \* $3; }

| expr '/' expr { $$ = $1 / $3; }

| '(' expr ')' { $$ = $2; }

| NUM { $$ = $1; }

;

%%

int yylex() {

int c;

do {

c = getchar();

} while (c == ' ' || c == '\t');

if (isdigit(c) || c == '.') {

ungetc(c, stdin);

scanf("%lf", &yylval);

return NUM;

}

return c;

}

void yyerror(const char \*s) {

fprintf(stderr, "%s\n", s);

}

int main() {

printf("\nEnter Any Arithmetic Expression :");

yyparse();

return 0;

}