Experiment 8.

→ Convert infix to postfix or prefix

→
```
#include<stdio.h>
#include<ctyp.h>

 char stack [100];
 int top = -1;

 void push(char x){
Stack [++ top] = x;
}
 char pop() {
  if (top== -1){
    return -1;
  } else{
       return stack [top--];
 }
 }
int priority (char x) {
  if (x == '(' ){
    return 0;
 }
  if(x == '+' ||'x == '- '){
    return 1;
 }
  if(x== '*' || x== '/'){
return 2;
}
}
 int main() {
 char exp [100];
char *e , x;
printf("Enter expression :");
Scanf ("%d", & exp);
prinf(" \n");
  e = exp;
 while (*e != '0'){
   if (isanum (*e)){
      printf(" %c", *e);
  }
   else if (* e == '('){
      push(*e);
   }
  else if (*e == ')'){
   while ((x = pop()) != '('){
    printf(" %c", x);
  }
  }
  else {
  while (priority (stack [top]) >= priority(*e))
  {
   printf(" %c" , pop());
  }
  push (*e);
  }
 e++ ;
}
while (top != -1){
  printf(" %c" , pop());
}
return0;
}
```

O/P :

Enter expression : ++ abc-*

+ a bc + * -

[redacted]

4 * WAP to evaluate infix or prefix expressio.

code -

```
-> #include <stdio.h>
   #include <ctype.h
   char stack [100];
  int top = -1;
  void push(char x){
    stack [++ top] = x;
  }
  char pop (){
    if( top = = -1){
        return -1;
  }
   else{
     ~~returnstack [top = -1];~~
   ~~{~~
   ~~}~~

   int priority (char x){
     if (x =='(' ){
         return 0;
    }
      if(x == '+' || x =='-'){
         return -1;
    }
```

```
if (x = = '*' || x = = '/'){
        return 2;
}
refum 0;
}
int main(){
  char exp[100];
  char *e, x;
  printf("Enter expression:");
  scanf("%s", &exp);
  printf("\n");
   e = exp;
  while (*e != '\0'){
     if (is a num (*e)){
        printf("%e", *e);
   }

else if(*e = = '('){
 push (*e);
}
  else if (*e = = ')'){
    while ((x = pop()) ! = '('){
    printff("%c", x);
 }
} else {
   while (priority (stack [top]) > = priority
   (*e)){
     printf(" %c", pop ());
  } }
    push (*e);
    }
    e++ ;
   }
```

```
while (top != -1) {
    printf(" %c", pop());
}
    return 0;
}
```

O/P :-

```
Enter expression: 1 - f *765
1 - 765 * f
```

13/11

i) ~~Stack size 8 for push (10)~~