

Aim:

Write a C program to convert a Prefix expression to Infix expression.

Source Code:

prefixToInfix.c

```
#include<stdio.h>
#include<conio.h>
#include<string.h>
#include<stdlib.h>
# define MAX 20
char str[MAX],stack[MAX];
int top=-1;
void push(char c)
{
    stack[++top]=c;
}
char pop()
{
    return stack[top--];
}
void prefix()
{
    int n,i;
    char a,b,op;
    printf("Enter a Prefix expression:");
    fflush(stdin);
    scanf("%s",str);
    n=strlen(str);
    for(i=0;i<MAX;i++)
    {
        stack[i]='\0';
    }
    printf("Infix expression:");
    for(i=0;i<n;i++)
    {
        if(str[i]=='+'||str[i]=='-'||str[i]=='*'||str[i]=='/')
        {
            push(str[i]);
        }
        else
        {
            op=pop();
            a=str[i];
            if(op == '\0')
            {
                printf("%c",a);
            }
            else
            {
                printf("%c%c",a,op);
            }
        }
    }
}
```

```
    }  
  }  
  if(top >= 0)  
  {  
    printf("%c\n", str[top--]);  
  }  
  else  
  {  
    printf("\n");  
  }  
  //printf("%c\n", str[top--]);  
}  
void main()  
{  
  prefix();  
}
```

Execution Results - All test cases have succeeded!

Test Case - 1
User Output
Enter a Prefix expression: +AB
Infix expression: A+B

Test Case - 2
User Output
Enter a Prefix expression: +/AB/CD
Infix expression: A/B+C/D