Aim:

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

Source Code:

prefixToInfix.c

```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