

```
#include <stdio.h>
#include <string.h>
```

```
int F(char sym)
{
    switch (sym)
    {
        case '+':
            case '-': return 2;
            case '*':
            case '/': return 4;
            case '^':
            case '$': return 5;
            case '(': return 0;
            case '#': return -1;
            default: return 8;
    }
}
```

```
int G(char sym)
{
    switch (sym)
    {
        case '+':
            case '-': return 1;
            case '*':
            case '/': return 3;
            case '^':
            case '$': return 6;
            case '(': return 9;
            case ')': return 0;
            default: return 7;
    }
}
```



```

void infix_postfix(char infix[], char postfix[])
{
    int top, i, j;
    char S[30], sym;
    top = -1;
    S[++top] = '#';
    j = 0;
    for (i = 0; i < strlen(infix); i++)
    {
        sym = infix[i];
        while (F(S[top]) > G(sym))
        {
            postfix[j++] = S[top--];
        }
        if (F(S[top]) != G(sym))
            S[++top] = sym;
        else
            top--;
    } // close for

    while (S[top] != '#')
        postfix[j++] = S[top--];

    postfix[j] = '\0';
}

```

```

void main()
{
    char infix[20];
    char postfix[20];
    printf("Enter an infix expression\n");
    scanf("%s", infix);
    infix_postfix(infix, postfix);
    printf("The postfix expression is\n");
    printf("%s", postfix);
}

```