

```
#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;
    }
}
```

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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++)

{ if (sym == infix[i])

while (F(o[top]) > G(sym))

{

postfix[j] = o[top--];

j++; }

if (F(o[top]) != G(sym))

o[++top] = sym;

else

top--;

} // close for

while (o[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:");

printf("%s", postfix);

}