

```

1  #include<stdio.h>
2  #include<string.h>
3  int F(char symbol)
4  {
5      switch(symbol)
6      {
7          case '+':
8          case '-':return 2;
9          case '*':
10         case '/':return 4;
11         case '^':
12         case '$':return 5;
13         case '(':return 0;
14         case '#':return -1;
15         default:return 8;
16     }
17 }
18
19 int G(char symbol)
20 {
21     switch(symbol)
22     {
23         case '+':
24         case '-':return 1;
25         case '*':
26         case '/':return 3;
27         case '^':
28         case '$':return 6;
29         case '(':return 9;
30         case '#':return 0;

```

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31         default:return 7;
32     }
33 }
34 void infix_postfix(char infix[],char postfix[])
35 {
36     int top,i,j;
37     char s[30],symbol;
38     top=-1;
39     s[++top]='#';
40     j=0;
41     for(i=0;i<strlen(infix);i++)
42     {
43         symbol=infix[i];
44         while(F(s[top])>G(symbol))
45         {
46             postfix[j]=s[top--];
47             j++;
48         }
49         if(F(s[top])!=G(symbol))
50             s[++top]=symbol;
51         else
52             top--;
53     }
54     while(s[top]!='#')
55     {
56         postfix[j++]=s[top--];
57     }
58     postfix[j]='\0';
59 }
60 void main()

```

```
60 void main()
61 {
62     char infix[20];
63     char postfix[20];
64     printf("enter valid infix expression:\n");
65     scanf("%s",infix);
66     infix_postfix(infix,postfix);
67     printf("the postfix expression is:\n");
68     printf("%s\n",postfix);
69 }
70
71
```

enter valid infix expression:

a\$b*c-d+e/f/(g+h)

the postfix expression is:

ab\$c*d-ef/gh)+(/+

...Program finished with exit code 0

Press ENTER to exit console.