

Write C-program to convert infix to postfix expression

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

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

```
#include <conio.h>
```

```
int F(char symbol)
```

```
{ switch(symbol)
```

```
{ case '+':
```

```
case '-': return 2;
```

```
case '*':
```

```
case '/': return 3;
```

```
case '^':
```

```
case '$': return 5;
```

```
case '(': return 0;
```

```
case '#': return -1;
```

```
default : return 8;
```

```
}
```

```
int G(char symbol)
```

```
{ switch(symbol)
```

```
{ case '+':
```

```
case '-': return 1;
```

```
case '*':
```

```
case '/': return 3;
```

```
case '^':
```

```
case '$': return 6;
```

```
case '(': return 0;
```

```
case ')': return 0;
```

```
default: return 7;  
}
```

```
{  
void infix-postfix(char infix[], char postfix[])
```

```
{ int top, i, j = 0;
```

```
char s[30], symbol;
```

```
top = -1;
```

```
s[++top] = '#';
```

```
for (i = 0; i < strlen(infix); i++)
```

```
{ symbol = infix[i];
```

```
while (P(s[top]) > Q(symbol))
```

```
{ postfix[j] = s[top--];  
j++;
```

```
}
```

```
if (P(s[top]) != Q(symbol))
```

```
s[++top] = symbol;
```

```
else
```

```
top--;
```

```
}
```

```
while (s[top] != '#')
```

```
{ postfix[j++] = s[top--];
```

```
}
```

```
postfix[j] = '\0';
```

```
}
```



```
void main()  
{ char infix[50];  
  char postfix[50];  
  printf("Enter valid infix expressions \n");  
  scanf("%s", &infix);  
  infix_postfix(infix, postfix);  
  printf("The postfix expression is \n");  
  printf("%s\n", postfix);  
  getch();  
}
```

C:\Windows\system32\cmd.exe



```
Enter the valid infix expression
a+b*(c^d-e)^(f+g*h)-i
The postfix expression is
abcd^e-fgh*+^*+i-
```

<program exited with code: 0>

Press any key to continue . . .