#include<stdio.h>

#include<string.h>

char postfix[20],infix[20],stack[20],temp;

int top=-1,len,pos=0;

int ind=0;

char pop();

void push(char);

int get\_precedence(char);

void infixToPostfix();

int main()

{

printf("Enter infix expression\n");

scanf("%s",infix);

infixToPostfix();

printf("infix expression %s\nPostfix expression %s",infix,postfix);

return 0;

}

char pop()

{

return stack[top--];

}

void push(char ch)

{

stack[++top]=ch;

}

int get\_precedence(char ch)

{

switch(ch)

{

case '^':return 3;

case '\*':

case '/': return 2;

case '+':

case '-': return 1;

case '(': return 0;

default: return -1;

}

}

void infixToPostfix()

{

len=strlen(infix);

push('#');

while(ind<len)

{

char ch=infix[ind++];

switch(ch)

{

case '(':push(ch);

break;

case ')':temp=pop();

while(temp!='(')

{

postfix[pos++]=temp;

temp=pop();

}

break;

case '\*':

case '/':

case '+':

case '-':

case '^': while(get\_precedence(stack[top])>=get\_precedence(ch))

{

postfix[pos++]=pop();

}

push(ch);

break;

default: postfix[pos++]=ch;

}

}

while(top>=1)

{

postfix[pos++]=pop();

}

}





