#include <stdio.h>

#include <ctype.h>

char s[50];

int top=-1;

char push(char elem)

{

s[++top]=elem;

return 0;

}

char pop()

{

return(s[top--]);

}

int priority(char elem)

{

switch(elem)

{

case '#': return 0;

case '(': return 1;

case '+':

case '-': return 2;

case '\*':

case '/': return 3;

}

return 0;

}

int main()

{

char infix[50],postfix[50],ch,elem;

int i=0,j=0;

printf("Enter the infix expression\n");

scanf("%s",infix);

push('#');

while((ch=infix[i++])!='\0')

{

if(ch=='(')

push(ch);

else

if(isalnum(ch))

postfix[j++]=ch;

else

if(ch==')')

{

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

postfix[j++]=pop();

elem=pop();

}

else

{

while(priority(s[top])>=priority(ch) )

postfix[j++]=pop();

push(ch);

}

}

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

postfix[j++]=pop();

printf("The postfix equivalent is %s\n",postfix);

}