Run ▶

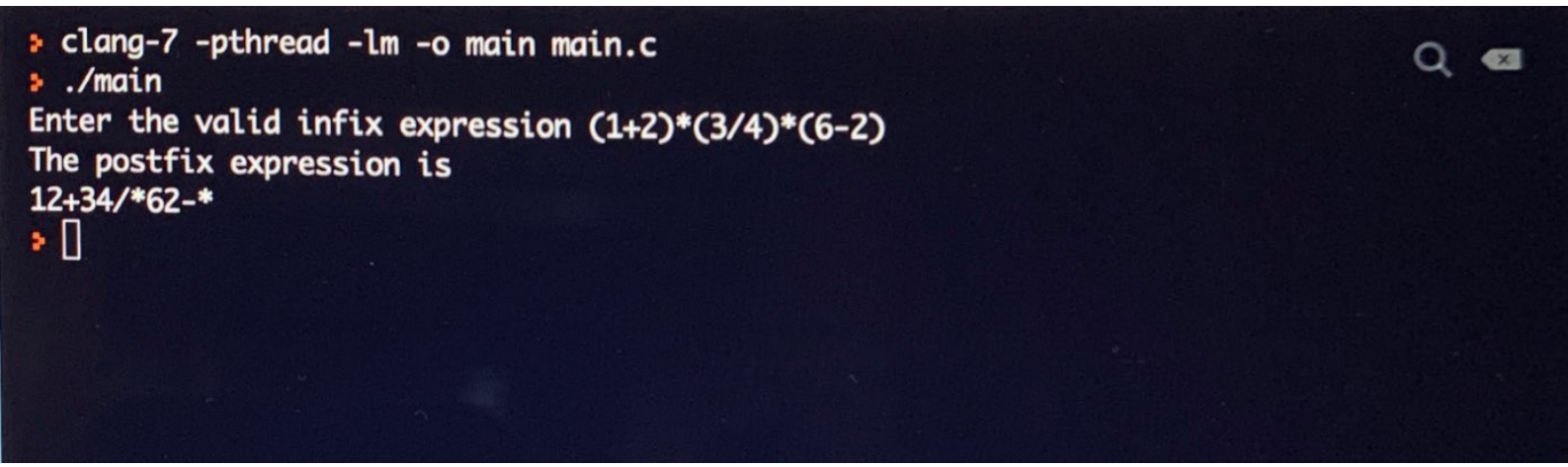
main.c

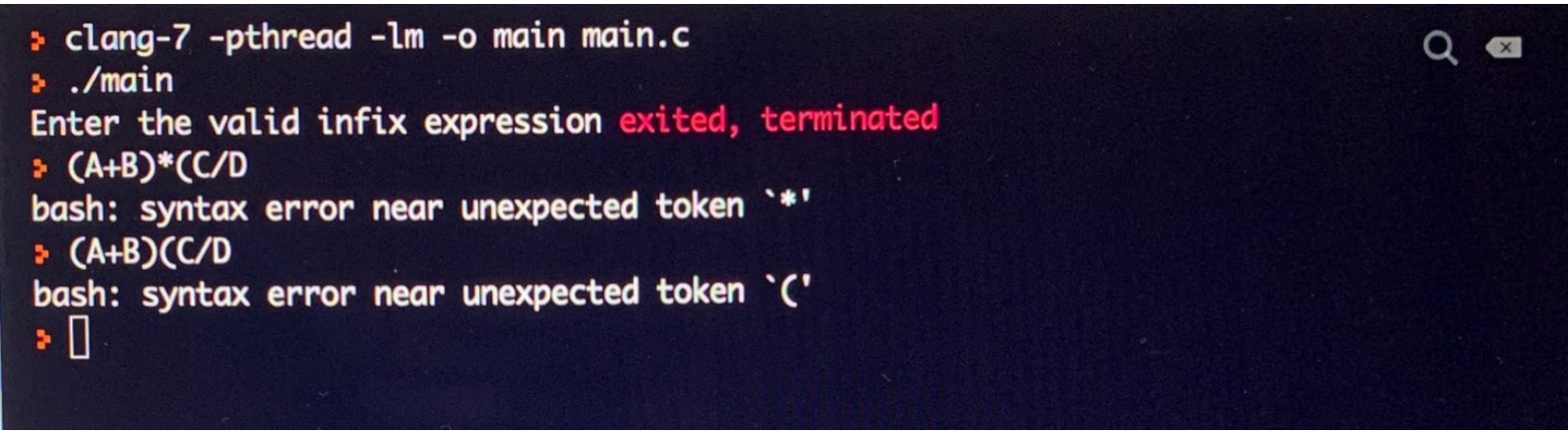
```c
#include<stdio.h>
#include<string.h>
#include<stdlib.h>

int F(char symbol)
{
switch(symbol)
{
 case'+':
 case'-':return 2;
 case'*':
 case'/':return 4;
 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 9;
 case')':return 0;
 default:return 7;
  }
}

void infix_postfix(char infix[],char postfix[])
{
int top,i,j;
char s[30],symbol;
top=-1;
s[++top]='#';
j=0;

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

et C Run ▶

main.c

```
42  s[++top]='#';
43  j=0;
44
45  for(i=0;i<strlen(infix);i++)
46   {
47  symbol=infix[i];
48  while(F(s[top])>G(symbol))
49  {
50  postfix[j]=s[top--];
51  j++;
52  }
53
54
55   if(F(s[top])!=G(symbol))
56   s[++top]=symbol;
57   else
58   top--;
59   }
60
61   while(s[top]!='#')
62   {
63   postfix[j++]=s[top--];
64   }
65   postfix[j]='\0';
66   }
67
68   int main()
69   {
70   char infix[20];
71   char postfix[20];
72   printf("Enter the valid infix expression ");
73   scanf("%s",infix);
74   infix_postfix(infix , postfix );
75   printf("The postfix expression is \n");
76   printf("%s\n",postfix);
77   }
```





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CSE
DS LAB

```
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#include<string.h>
#include<stdlib.h>
int F(char symbol)
{
switch(symbol)
{
case '+':
case '-': return 2;
case '*':
case '/': return 4;
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 9;
case ')': return 0;
default: return 7;
}
}
void infix_postfix(char infix[], char postfix[])
```

```
{
int top,i,j;
char s[30], symbol;
top = -1;
s[++top]= '#';
j= 0;
for (i=0; i<strlen(infix); i++)
{
symbol= infix[i];
while (F(s[top]) >G(symbol))
{
postfix[j]= s[top--];
j++;
}
if (F(s[top])!=G(symbol))
s[++top]= symbol;
else
top--;
}
while (s[top] != '#')
{
postfix[j++]= s[top--];
}
postfix[j]= '\0';
}
int main()
{
char infix[20];
char postfix[20];
printf("Enter the valid infix expression");
scanf("%s", infix);
infix_postfix(infix, postfix);
printf("The postfix expression is \n");
printf("%s\n", postfix);
}
```