

四. 实验结果与分析

2

源程序：

```
# include <stdio.h>
double fact(int n);
int main()
{
    double sum=0;
    for (int i=1;i<=10;i++) sum += fact(i);
    printf("1!+2!+...+10!=%lf\n", sum);
    return 0;
}
double fact(int n)
{
    double result=1;
    for (int i=1;i<=n;i++) result=result*i;
    return result;
}
```

(1) 3 error(s) 1 warnings

- ① (4): error C2143: 语法错误: 缺少“;” (在“{”的前面)
- ② (10): warning C4474: printf: 格式字符串中传递的参数太多
- ③ (15): error C2449: 在文件范围内找到“{” (是否缺少函数头?)
- ④ (20): error C2106: “=”: 左操作数必须为左值

(2) 赋值运算等号左侧应为变量而非值

(3) ① (21): warning C4716: “fact”: 必须返回一个值

② (9): error C4700: 使用了未初始化的局部变量“sum”

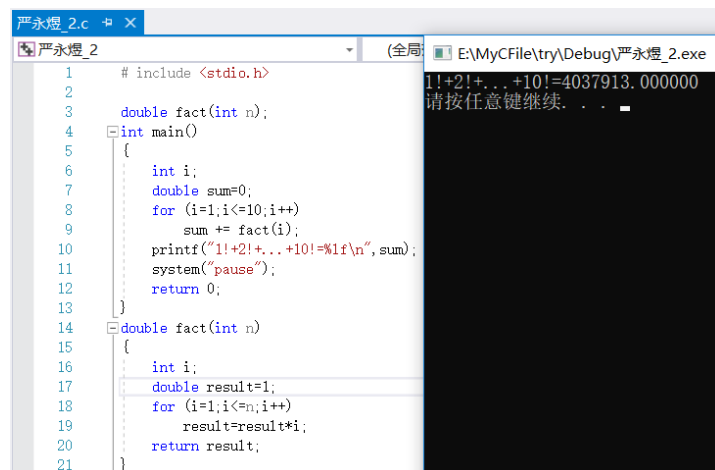
错误行号: 21 正确语句: return result;

错误行号: 9 正确语句: double sum = 0;

(4) 运行结果为: 1!+2!+...+10!=1511.000000 是否正确: 错误

错误行号: 20 正确语句: for (i=1;i<=n;i++) result=result*i;

错误行号: 8 正确语句: for (i=1;i<=10;i++)



```
严永煜_2.c x
严永煜_2 (全局) E:\MyCFile\try\Debug\严永煜_2.exe
1 # include <stdio.h>
2
3 double fact(int n);
4 int main()
5 {
6     int i;
7     double sum=0;
8     for (i=1;i<=10;i++)
9         sum += fact(i);
10    printf("1!+2!+...+10!=%lf\n", sum);
11    system("pause");
12    return 0;
13 }
14 double fact(int n)
15 {
16     int i;
17     double result=1;
18     for (i=1;i<=n;i++)
19         result=result*i;
20    return result;
21 }
```

1!+2!+...+10!=4037913.000000
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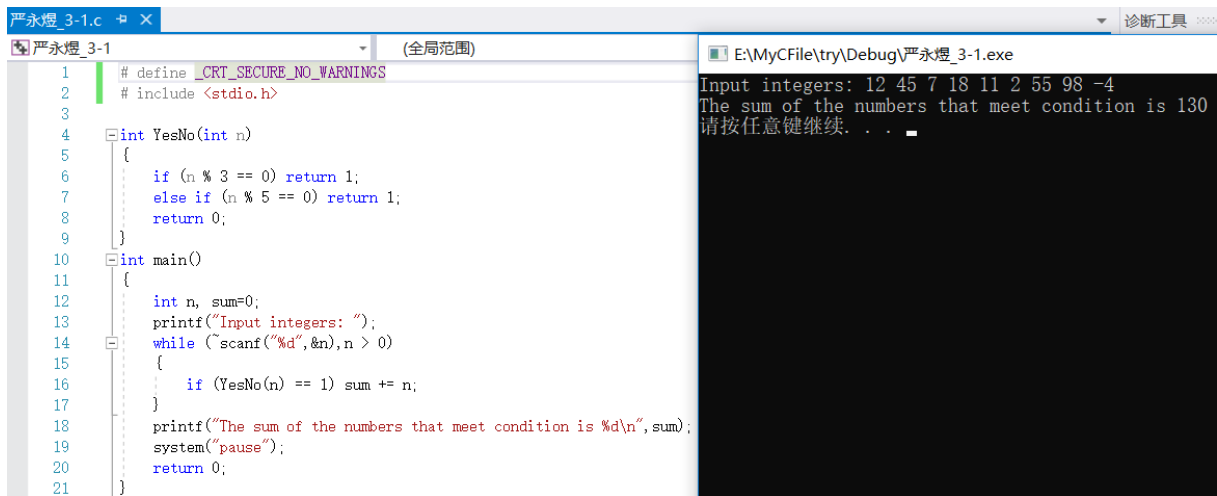
3-1

源程序:

```
# include <stdio.h>

int YesNo(int n)
{
    if (n % 3 == 0) return 1;
    else if (n % 5 == 0) return 1;
    return 0;
}

int main()
{
    int n, sum=0;
    printf("Input integers: ");
    while (~scanf("%d",&n),n > 0)
    {
        if (YesNo(n) == 1) sum += n;
    }
    printf("The sum of the numbers that meet condition is %d\n",sum);
    return 0;
}
```

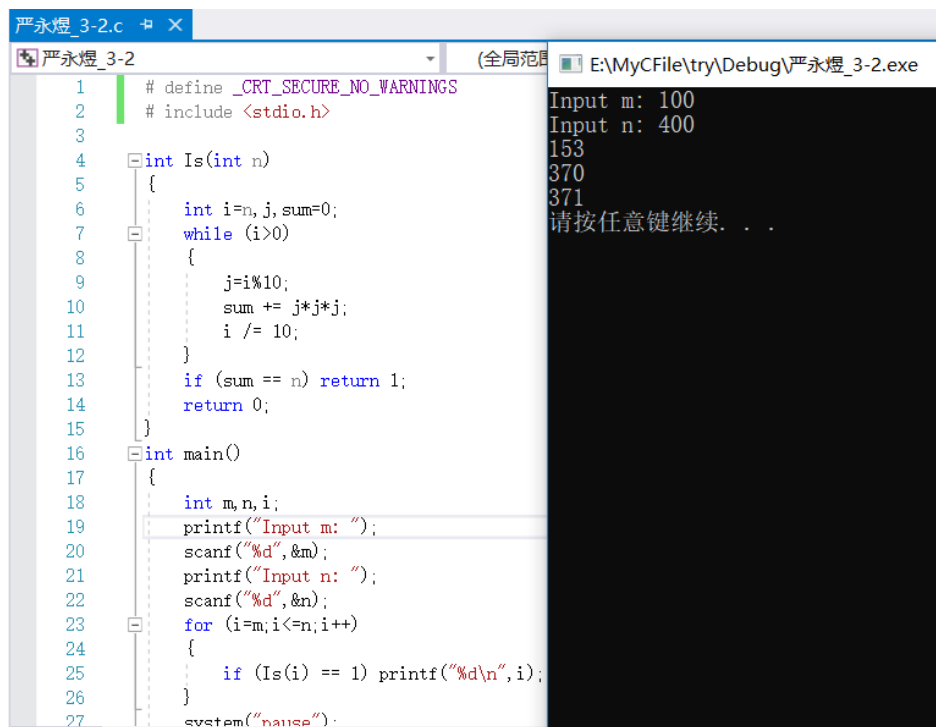


The screenshot displays a C program and its execution. The source code on the left defines a function `YesNo` that checks if a number is divisible by 3 or 5, and a `main` function that reads integers until a negative value is entered, summing those that meet the condition. The output on the right shows the input sequence `12 45 7 18 11 2 55 98 -4` and the resulting sum of `130`.

3-2

源程序:

```
# include <stdio.h>
int Is(int n)
{
    int i=n, j, sum=0;
    while (i>0)
    {
        j=i%10;
        sum += j*j*j;
        i /= 10;
    }
    if (sum == n) return 1;
    return 0;
}
int main()
{
    int m,n,i;
    printf("Input m: ");
    scanf("%d",&m);
    printf("Input n: ");
    scanf("%d",&n);
    for (i=m;i<=n;i++)
        if (Is(i) == 1) printf("%d\n",i);
    return 0;
}
```



```
严永煜_3-2.c 严永煜_3-2 (全局范围) E:\MyCFile\try\Debug\严永煜_3-2.exe
1  # define _CRT_SECURE_NO_WARNINGS
2  # include <stdio.h>
3
4  int Is(int n)
5  {
6      int i=n, j, sum=0;
7      while (i>0)
8      {
9          j=i%10;
10         sum += j*j*j;
11         i /= 10;
12     }
13     if (sum == n) return 1;
14     return 0;
15 }
16 int main()
17 {
18     int m,n,i;
19     printf("Input m: ");
20     scanf("%d",&m);
21     printf("Input n: ");
22     scanf("%d",&n);
23     for (i=m;i<=n;i++)
24     {
25         if (Is(i) == 1) printf("%d\n",i);
26     }
27     system("pause");

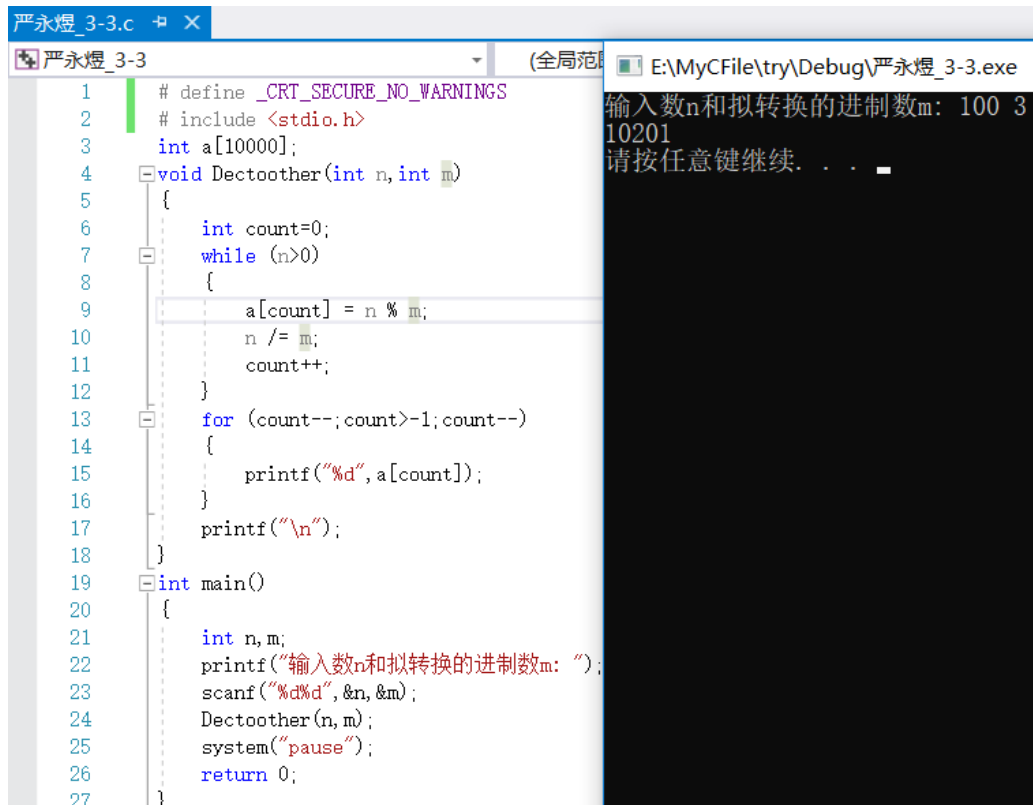
```

```
Input m: 100
Input n: 400
153
370
371
请按任意键继续. . .
```

3-3

源程序：

```
# include <stdio.h>
int a[10000];
void Dectooother(int n,int m)
{
    int count=0;
    while (n>0)
    {
        a[count] = n % m;
        n /= m;
        count++;
    }
    for (count--;count>=0;count++) printf("%d",a[count]);
    printf("\n");
}
int main()
{
    int n,m;
    printf("输入数 n 和拟转换的进制数 m: ");
    scanf("%d%d",&n,&m);
    Dectooother(n,m);
    return 0;
}
```



```
1 # define _CRT_SECURE_NO_WARNINGS
2 # include <stdio.h>
3 int a[10000];
4 void Dectooother(int n,int m)
5 {
6     int count=0;
7     while (n>0)
8     {
9         a[count] = n % m;
10        n /= m;
11        count++;
12    }
13    for (count--;count>=0;count++)
14    {
15        printf("%d",a[count]);
16    }
17    printf("\n");
18 }
19 int main()
20 {
21     int n,m;
22     printf("输入数n和拟转换的进制数m: ");
23     scanf("%d%d",&n,&m);
24     Dectooother(n,m);
25     system("pause");
26     return 0;
27 }
```

输入数n和拟转换的进制数m: 100 3
10201
请按任意键继续. . .

3-4

源程序:

3-4. c:

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

文件包含:

```
# include "fun.c"
```

连接:

```
extern int Add(int a,int b), Sub(int a,int b), Mul(int a,int b);  
extern double Div(int a,int b);
```

```
int main()  
{  
    int a,b;  
    char c;  
    scanf("%d%c%d",&a,&c,&b);  
    if (c=='+') printf("%d+%d=%d\n",a,b,Add(a,b));  
    else if (c=='-') printf("%d-%d=%d\n",a,b,Sub(a,b));  
    else if (c=='*') printf("%d*%d=%d\n",a,b,Mul(a,b));  
    else if (c=='/') printf("%d÷%d=%.6lf\n",a,b,Div(a,b));  
    system("pause");  
    return 0;  
}
```

fun. c:

```
int Add(int a,int b)  
{  
    return a+b;  
}  
int Sub(int a,int b)  
{  
    return a-b;  
}  
int Mul(int a,int b)  
{  
    return a*b;  
}  
double Div(int a,int b)  
{  
    return a*1.0/b;  
}
```

```
严永煜_3-4.c  [X]
严永煜_3-4 (全局范围) E:\MyCFile\try\Debug\严永煜_
1 # define _CRT_SECURE_NO_WARNINGS
2 # include <stdio.h>
3 # include "fun.c"
4
5 int main()
6 {
7     int a,b;
8     char c;
9     scanf("%d%c%d",&a,&c,&b);
10    if (c=='+') printf("%d+%d=%d\n",a,b,Add(a,b));
11    else if (c=='-') printf("%d-%d=%d\n",a,b,Sub(a,b));
12    else if (c=='*') printf("%d*%d=%d\n",a,b,Mul(a,b));
13    else if (c=='/') printf("%d÷%d=%.61f\n",a,b,Div(a,b));
14    system("pause");
15    return 0;
16 }
```

17/5
17÷5=3.400000
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```
严永煜_3-4.c  [X]
严永煜_3-4 (全局范围) E:\MyCFile\try\Debug\严永煜_3-4.exe
1 # define _CRT_SECURE_NO_WARNINGS
2 # include <stdio.h>
3 extern int Add(int a,int b), Sub(int a,int b), Mul(int a,int b);
4 extern double Div(int a,int b);
5
6 int main()
7 {
8     int a,b;
9     char c;
10    scanf("%d%c%d",&a,&c,&b);
11    if (c=='+') printf("%d+%d=%d\n",a,b,Add(a,b));
12    else if (c=='-') printf("%d-%d=%d\n",a,b,Sub(a,b));
13    else if (c=='*') printf("%d*%d=%d\n",a,b,Mul(a,b));
14    else if (c=='/') printf("%d÷%d=%.61f\n",a,b,Div(a,b));
15    system("pause");
16    return 0;
17 }
```

5+10
5+10=15
请按任意键继续. . .