

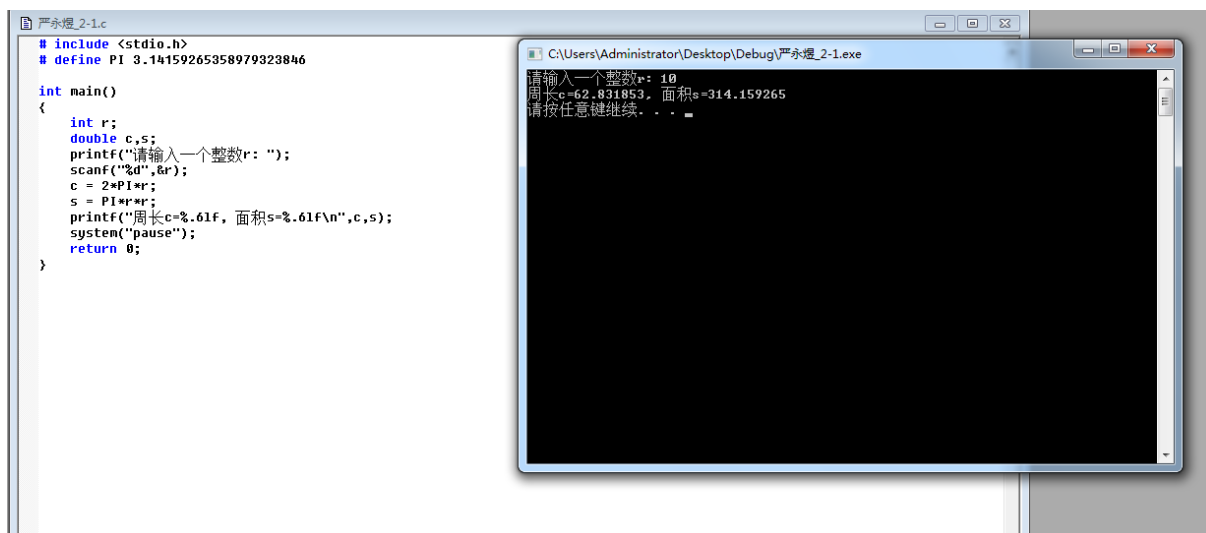
四. 实验结果与分析

2-1

源程序:

```
# include <stdio.h>
# define PI 3.14159265358979323846

int main()
{
    int r;
    double c,s;
    printf("请输入一个整数 r: ");
    scanf("%d",&r);
    c = 2*PI*r;
    s = PI*r*r;
    printf("周长 c=%.6lf, 面积 s=%.6lf\n",c,s);
    return 0;
}
```



遇到的问题: 输出数据有微小差异

解决方法: 提高 π 精度

2-2

源程序:

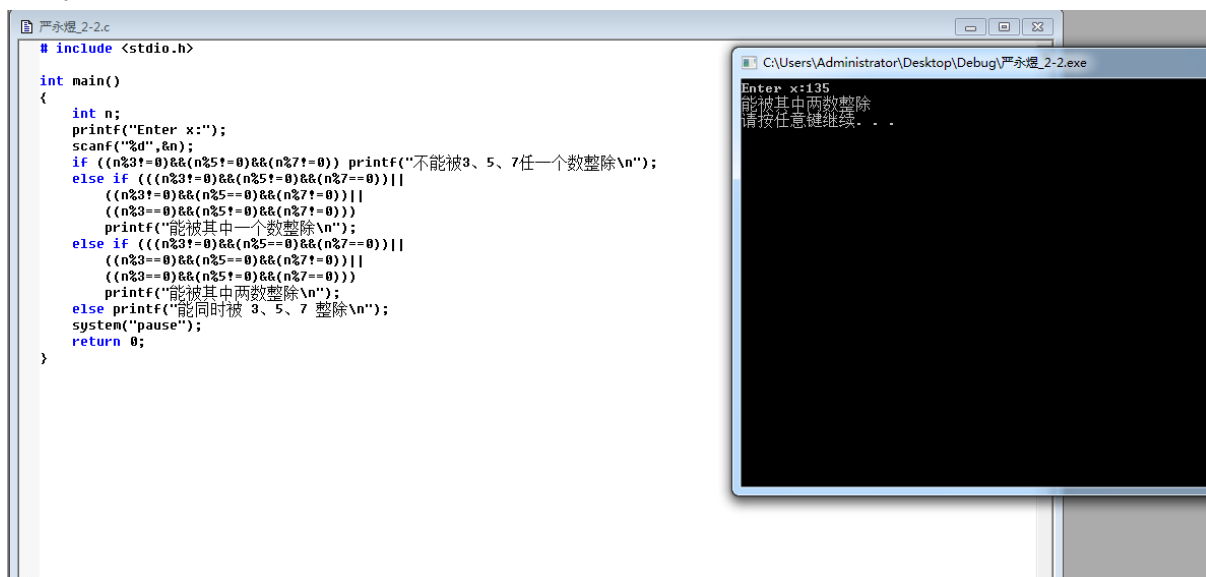
```
# include <stdio.h>

int main()
{
```

```

int n;
printf("Enter x:");
scanf("%d",&n);
if ((n % 3 != 0)&&(n % 5 != 0)&&(n % 7 != 0)) printf("不能被 3、5、7 任一个数整除\n");
else if (((n % 3 != 0)&&(n % 5 != 0)&&(n % 7 == 0)) ||
        ((n % 3 != 0)&&(n % 5 == 0)&&(n % 7 != 0)) ||
        ((n % 3 == 0)&&(n % 5 != 0)&&(n % 7 != 0)))
    printf("能被其中一个数整除\n");
else if (((n % 3 != 0)&&(n % 5 == 0)&&(n % 7 == 0)) ||
        ((n % 3 == 0)&&(n % 5 == 0)&&(n % 7 != 0)) ||
        ((n % 3 == 0)&&(n % 5 != 0)&&(n % 7 == 0)))
    printf("能被其中两数整除\n");
else printf("能同时被 3、5、7 整除\n");
return 0;
}

```



2-3

源程序:

```

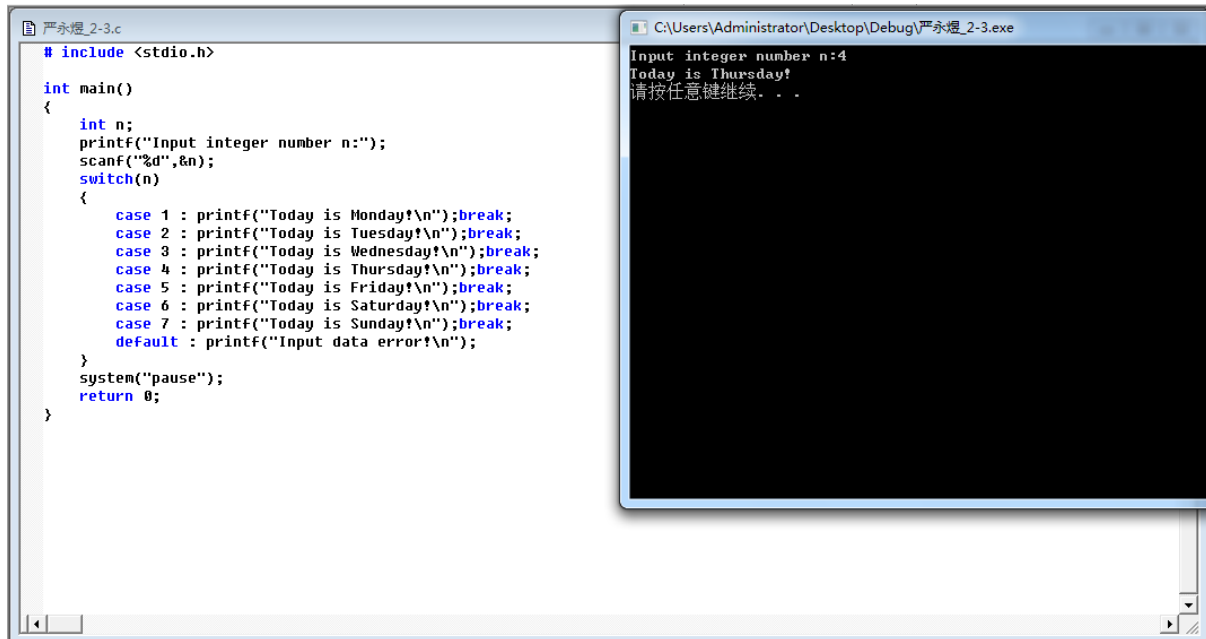
#include <stdio.h>
int main()
{
    int n;
    printf("Input integer number n:");
    scanf("%d",&n);
    switch(n)
    {
        case 1 : printf("Today is Monday!\n");break;
        case 2 : printf("Today is Tuesday!\n");break;

```

```

        case 3 : printf("Today is Wednesday!\n");break;
        case 4 : printf("Today is Thursday!\n");break;
        case 5 : printf("Today is Friday!\n");break;
        case 6 : printf("Today is Saturday!\n");break;
        case 7 : printf("Today is Sunday!\n");break;
        default : printf("Input data error!\n");
    }
    return 0;
}

```



2-4

源程序:

```

#include <stdio.h>
int main()
{
    int n, i, m;
    double e=1, each, grade;
    printf("Input n:");
    scanf("%d",&n);
    for (i = 1; i <= n; i++)
    {
        grade = 1;
        for (m = i; m > 0; m--) grade *= m;
        each = 1 / grade;
        e += each;
    }
}

```

```
printf("e=%.4lf\n",e);  
return 0;  
}
```

the c programing language (全局范围)

```
1 # define _CRT_SECURE_NO_WARNINGS  
2 # include <stdio.h>  
3  
4 int main()  
5 {  
6     int n, i, m;  
7     double e=1, each, grade;  
8     printf("Input n:");  
9     scanf("%d",&n);  
10    for (i=1;i<=n;i++)  
11    {  
12        grade = 1;  
13        for (m = i; m > 0; m--) grade *= m;  
14        each = 1 / grade;  
15        e += each;  
16    }  
17    printf("e=%.4lf\n",e);  
18    system("pause");  
19    return 0;  
20 }  
21
```

E:\MyCFile\try\Debug\the c programing language.exe

Input n:10
e=2.7183
请按任意键继续. . .

100 %