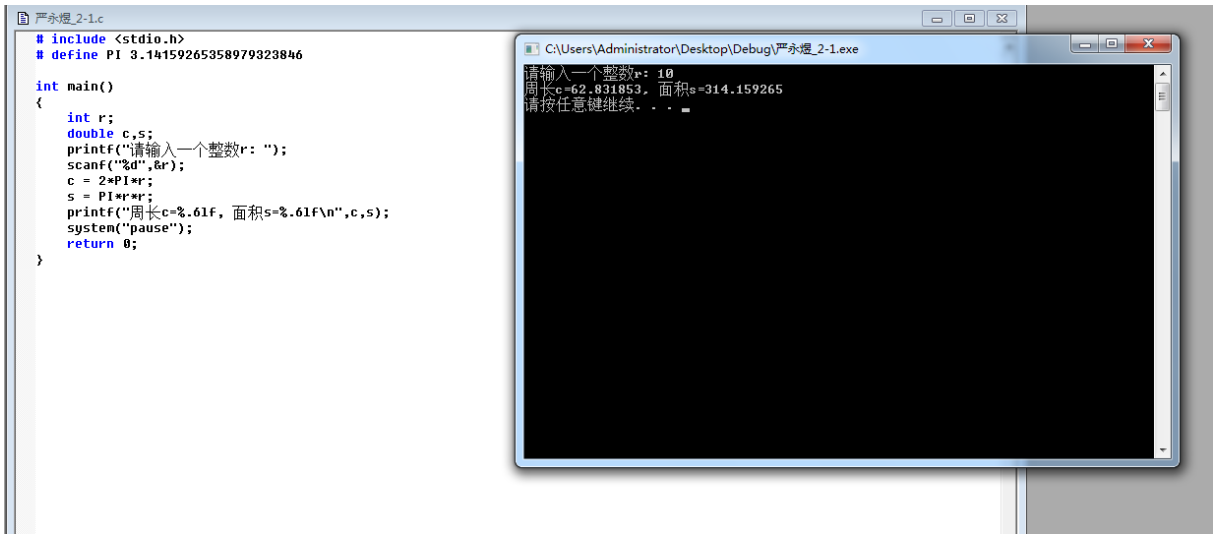
四．实验结果与分析

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()
{
```

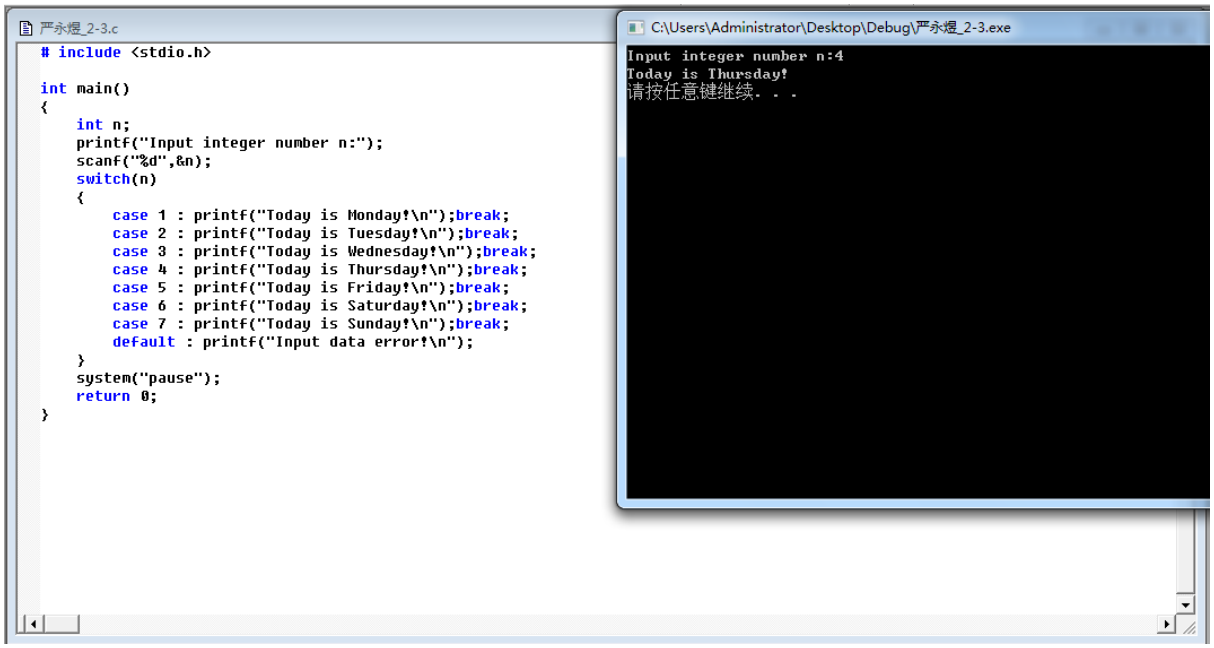
```
    int n;
    printf("Enter x:");
    scanf("%d",&n);
    if ((n % 3 != 0)&&(n % 5 != 0)&&(n % 7 != 0)) printf("不能被 3、5、7 任一个数整除\n");
    else if (((n % 3 != 0)&&(n % 5 != 0)&&(n % 7 == 0))||
        ((n % 3 != 0)&&(n % 5 == 0)&&(n % 7 != 0))||
        ((n % 3 == 0)&&(n % 5 != 0)&&(n % 7 != 0)))
        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;
}
```