LAB REPORT 实验报告

Lab Title	Convert a Celsius temperature into its Fahrenheit equivalent			Lab No.	01
Stud. Name		Major	Computer Science & Technology	Class	
Student ID		Date			

Lab description/objectives:

1. Modify example Program 2.9 in section 2.6 to convert a Celsius temperature into its Fahrenheit equivalent.
2. By using the formula $1^2+2^2+3^2+....+n^2 = n(n+1)(2n+1)/6$, write a C program to calculate: $10^2+11^2+...+20^2$.

Source code:

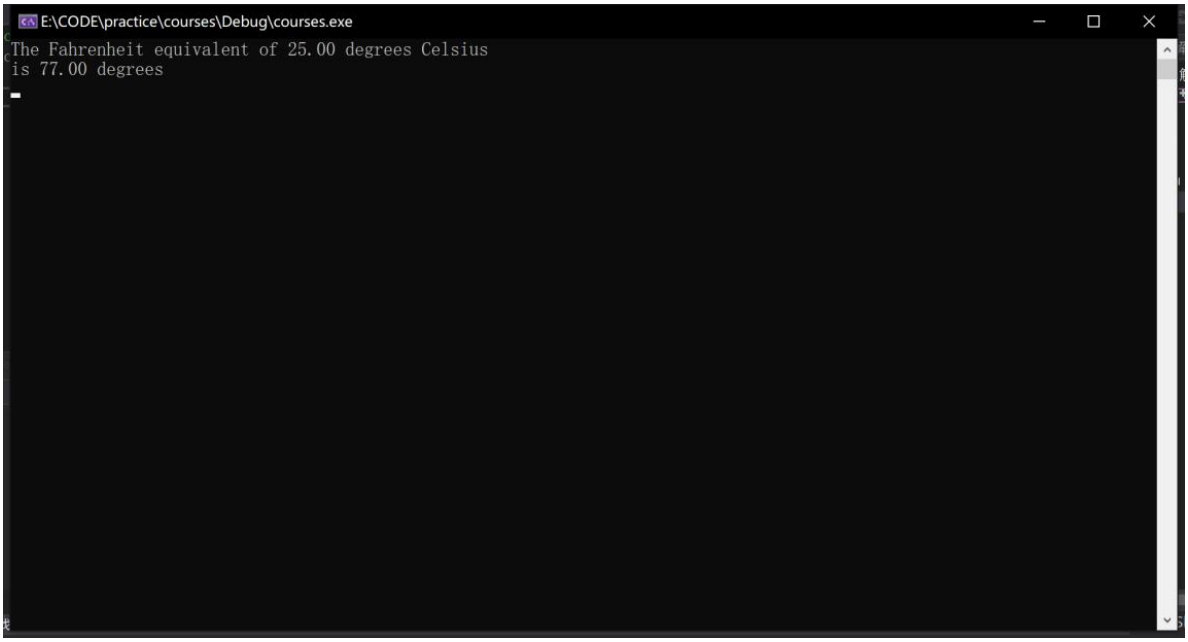
1.

```c
/* convert a Celsius temperature to Fahrenheit */
#include <stdio.h>
int main() {
    double celsius = 25; /* declaration and initialization */
    double fahrenheit;
    fahrenheit = 9.0 / 5.0 * celsius + 32.0;
    printf("The Fahrenheit equivalent of %5.2f degrees Celsius\n", celsius);
    printf("is %5.2f degrees\n", fahrenheit);
    return 0;
}
```

2.

```c
#include <stdio.h>
int main() {
    int out = 0;
    int n1 = 20;
    int n2 = 9;
    out = n1 * (n1 + 1) * (2 * n1 + 1) / 6 - n2 * (n2 + 1) * (2 * n2 + 1) / 6;
    printf("%d", out);
    return 0;
}
```

Program outputs:



Discussion:

1. **Most difficult parts**

   Clearly realize the relationship between 2 degrees, use correct expression to calculate.

2. **Bugs and/or Errors**

   Forgot to use float number in the expression, finally caused the program had a wrong output.