```cpp
// FunctionIterationFactorial_Ch 5.cpp : Defines the entry point for the console
// application.


#include "stdafx.h"
#include <iostream>
#include <iomanip>
using namespace std;

unsigned long factorial(unsigned int); // function prototype

int main() {
    // calculate the factorial of 0 - 10
    for (unsigned int counter{ 1 }; counter <= 10; ++counter) {
        cout << counter << setw(2) << "! = " << factorial(counter)
            << endl;
    }

    system("pause");
    return 0;
}

// iterative function factorial
unsigned long factorial(unsigned int number) {
    unsigned long result{ 1 };

    // iteratve factorial calculation
    for (unsigned int i{ number }; i >= 1; i--) {
        result *= i;
    }

    return result;
}
```