1.Long Factorial

```
#include <iostream>
int main() {
    int number;
    std::cout << "Enter a number: ";
    std::cin >> number;
    number = std::abs(number);
    int sum = 0;
    int currentDigit;
    while (number > 0) {
        currentDigit = number % 10;
        sum += currentDigit;
        number /= 10;
    }
    std::cout << "The sum of all digits is: " << sum << std::endl;
    return 0;
}
```

2.Prime number using function

```
#include <iostream>
bool isPrime(int n) {
    if (n <= 1) return false;
    if (n == 2) return true;  // 2 is the only even prime number
    if (n % 2 == 0) return false; // Eliminate other even numbers
    for (int i = 3; i * i <= n; i += 2) {
        if (n % i == 0) return false;
    }
    return true;
}
int main() {
    int number;
    std::cout << "Enter a number: ";
    std::cin >> number;
    if (isPrime(number)) {
        std::cout << number << " is a prime number." << std::endl;
    } else {
        std::cout << number << " is not a prime number." << std::endl;
    }
    return 0;
}
```

3.Reverse a string using function

```
#include <algorithm>
#include <iostream>
```

```
#include <string>
using namespace std;
int main()
{
    string str = "Hello, World!";
    reverse(str.begin(), str.end());
    cout << "Reversed string: " << str << endl;
    return 0;
}
```

4.Min and Max element

```
#include <bits/stdc++.h>
using namespace std;
int getMin(int arr[], int n)
{
    return *min_element(arr, arr + n);
}
int getMax(int arr[], int n)
{
    return *max_element(arr, arr + n);
}
int main()
{
    int arr[] = { 12, 1234, 45, 67, 1 };
    int n = sizeof(arr) / sizeof(arr[0]);
    cout << "Minimum element of array: " << getMin(arr, n) << " ";
    cout << "Maximum element of array: " << getMax(arr, n);
    return 0;
}
```

5.GCD

```
#include <bits/stdc++.h>
using namespace std;
int gcd(int a, int b)
{
    int result = min(a, b);
    while (result > 0) {
        if (a % result == 0 && b % result == 0) {
            break;
        }
        result--;
    }
    return result;
}
```

```
int main()
{
    int a = 98, b = 56;
    cout << "GCD of " << a << " and " << b << " is "
         << gcd(a, b);
    return 0;
}
```

6.Count the no of elements

```
#include <bits/stdc++.h>
using namespace std;
int main()
{
    int arr[] = { 3, 2, 1, 3, 3, 5, 3 };
    int n = sizeof(arr) / sizeof(arr[0]);
    cout <<
       "  Number of times 3 appears : "
    << count(arr, arr + n, 3);
    return 0;
```

7.Celsius and Fahrenheit

```
#include<iostream>
using namespace std;
int main()
{
    float fahrenheit, celsius;
    cout << "Enter the temperature in Celsius : ";
    cin >> celsius;
    fahrenheit = (celsius * 9.0) / 5.0 + 32;
    cout << "The temperature in Celsius    : " << celsius << endl;
    cout << "The temperature in Fahrenheit : " << fahrenheit << endl;
    return 0;
}
```

8.Area of circle

```
#include <iostream>
using namespace std;
 int main() {
   float radius, area_circle;
   cout << "Enter the radius of circle: ";
   cin >> radius;
```

```
    area_circle = 3.14 * radius * radius;
    cout << "Area of circle: " << area_circle << endl;
    return 0;
```

9.Palindrome or not

```
#include <iostream>
#include <string>
#include <algorithm>
bool isPalindrome(std::string str) {
    std::string original = str;
    std::reverse(str.begin(), str.end());
    return original == str;
}
int main() {
    std::string str;
    std::cout << "Enter a string: ";
    std::cin >> str;
    if (isPalindrome(str)) {
        std::cout << "The string is a palindrome." << std::endl;
    } else {
        std::cout << "The string is not a palindrome." << std::endl;
    }
    return 0;
}
```