- **Find Factor of a number**

```cpp
#include <iostream>
using namespace std;
int main() {
    int num;
    cout << "Enter a positive integer: ";
    cin >> num;

     cout << "Factors of " << num << " are: ";
    for (int i = 1; i <= num; i++) {
        if (num % i == 0) {
            cout << i << " ";
        }
    }
    cout << endl;
}
```

OUTPUT

Enter a positive integer: 12

Factors of 12 are: 1 2 3 4 6 12

- **PRINT PASCAL Traingle**

```cpp
#include <iostream>
using namespace std;
int main() {
    int numRows;
    cout << "Enter the number of rows for Pascal's Triangle: ";
    cin >> numRows;

    for (int i = 0; i < numRows; i++) {
        int num = 1;    // First element in each row is always 1

        for (int j = 0; j <= i; j++) {
            cout << num << " ";
            num = num * (i - j) / (j + 1);    // Calculate the next number

        }
        cout << endl;     // Move to the next row
    }
}
```

OUTPUT

Enter the number of rows for Pascal's Triangle: 6

1

1 1

1 2 1

1 3 3 1

1 4 6 4 1

1 5 10 10 5 1

- **CHEAK The NUMBER IS PRIME OR NON PRIME**

```
#include <iostream>
#include <cmath>
using namespace std;

bool isPrime(int num) {
    if (num <= 1) {
        return false;
    }
    if (num == 2) {
        return true;
    }
    if (num % 2 == 0) {
        return false;
    }
    for (int i = 3; i <= sqrt(num); i= i + 2) {
        if (num % i == 0) {
            return false;
//For all other numbers, check if it can be divided by any number from 2 to its square root (rounded down). If it can, then it is not a prime number. If it cannot, then it is a prime number.
        }
    }
    return true;
}

int main() {
    int num;
    cout << "Enter a number: ";
    cin >> num;
    if (isPrime(num)) {
       cout << num << " is a prime number." << endl;
    }
    else {
        cout << num << " is not a prime number." << endl;
    }

}
```

- **user enter 5 number the code deceides how many prime numbers are there.**

```
#include <iostream>
using namespace std;

bool isPrime(int num) {
    if (num <= 1)
        return false;
    for (int i = 2; i * i <= num; i++) {
        if (num % i == 0)
            return false;
    }
    return true;
}

int main() {
    int num;
    int primeCount = 0;

    for (int i = 0; i < 5; i++) {
        cout << "Enter number " << i + 1 << ": ";
        cin >> num;

        if (isPrime(num))
            primeCount++;
    }

    cout << "Number of prime numbers: " << primeCount << endl;

}
```

OUTPUT

Enter number 1: 2

Enter number 2: 6

Enter number 3: 17

Enter number 4: 19

Enter number 5: 7

Number of prime numbers: 4