1. **Largest among three numbers using ternary conditional operator**

**Code:**

#include <iostream>

using namespace std;

int main() {

int num1, num2, num3, maxNumber;

cout << "Enter three numbers: ";

cin >> num1 >> num2 >> num3;

maxNumber = (num1 > num2) ? ((num1 > num3) ? num1 : num3) : ((num2 > num3) ? num2 : num3);

cout << "The largest number among " << num1 << ", " << num2 << ", and " << num3 << " is: " << maxNumber << endl;

return 0;

}

**Output:**

Enter three numbers: 23 3 4

The largest number among 23, 3, and 4 is: 23

**2.     Program to check two numbers are equal or not using ternary conditional operator**

**Code:**

#include <iostream>

using namespace std;

int main() {

int num1, num2;

cout << "Enter the first number: ";

cin >> num1;

cout << "Enter the second number: ";

cin >> num2;

string result = (num1 == num2) ? "The numbers are equal." : "The numbers are not equal.";

cout << result << endl;

return 0;

}

**Output:**

Enter the first number: 23

Enter the second number: 12

The numbers are not equal.

**3.     Program to check the integer is divisible by 3 or not using ternary conditional operator**

**Code:**

#include <iostream>

using namespace std;

int main() {

int num;

cout << "Enter an integer: ";

cin >> num;

string result = (num % 3 == 0) ? "The number is divisible by 3." : "The number is not divisible by 3.";

cout << result << endl;

return 0;

}

**Output:**

Enter an integer: 23

The number is not divisible by 3.

**4.     Program to print numbers from 1 to 10 using for loop**

**Code:**

#include <iostream>

using namespace std;

int main() {

for (int i = 1; i <= 10; ++i) {

cout << i << " ";

}

cout << endl;

return 0;

}

**Output:**

1 2 3 4 5 6 7 8 9 10

**5.     Factorial of a number using for loop**

**Code:**

#include <iostream>

using namespace std;

int main() {

int num;

unsigned long long factorial = 1;

cout << "Enter a positive integer: ";

cin >> num;

if (num < 0) {

cout << "Error! Factorial of a negative number is undefined." << endl;

return 1;

}

for (int i = 1; i <= num; ++i) {

factorial \*= i;

}

cout << "Factorial of " << num << " = " << factorial << endl;

return 0;

}

**Output:**

Enter a positive integer: 23

Factorial of 23 = 8128291617894825984

**6.     Print multiplication table using for loop**

**Code:**

#include <iostream>

using namespace std;

int main() {

int num;

cout << "Enter a number to print its multiplication table: ";

cin >> num;

cout << "Multiplication table of " << num << ":\n";

for (int i = 1; i <= 10; ++i) {

cout << num << " x " << i << " = " << num \* i << endl;

}

return 0;

}

**Output:**

Enter a number to print its multiplication table: 34

Multiplication table of 34:

34 x 1 = 34

34 x 2 = 68

34 x 3 = 102

34 x 4 = 136

34 x 5 = 170

34 x 6 = 204

34 x 7 = 238

34 x 8 = 272

34 x 9 = 306

34 x 10 = 340

**7.     Fibonacci series using for loop**

**Code:**

#include <iostream>

using namespace std;

int main() {

int num, first = 0, second = 1, next;

cout << "Enter the number of terms in the Fibonacci series: ";

cin >> num;

cout << "Fibonacci series up to " << num << " terms:" << endl;

for (int i = 0; i < num; ++i) {

if (i <= 1)

next = i;

else {

next = first + second;

first = second;

second = next;

}

cout << next << " ";

}

return 0;

}

**Output:**

Enter the number of terms in the Fibonacci series: 23

Fibonacci series up to 23 terms:

0 1 1 2 3 5 8 13 21 34 55 89 144 233 377 610 987 1597 2584 4181 6765 10946 17711

**8.     Prime number using for loop**

**Code:**

#include <iostream>

#include <cmath>

using namespace std;

int main() {

int num;

cout << "Enter a positive integer: ";

cin >> num;

if (num <= 1) {

cout << "The number is not a prime number." << endl;

return 0;

}

for (int i = 2; i <= sqrt(num); ++i) {

if (num % i == 0) {

cout << "The number is not a prime number." << endl;

return 0;

}

}

cout << "The number is a prime number." << endl;

return 0;

}

**Output:**

Enter a positive integer: 7

The number is a prime number.

**9.     Check the string is palindrome or not using while loop**

**Code:**

#include <iostream>

#include <string>

using namespace std;

int main() {

string str;

cout << "Enter a string: ";

getline(cin, str);

int left = 0;

int right = str.length() - 1;

while (left < right && str[left] == str[right]) {

left++;

right--;

}

if (left >= right) {

cout << "The string is a palindrome." << endl;

} else {

cout << "The string is not a palindrome." << endl;

}

return 0;

}

**Output:**

Enter a string: radar

The string is a palindrome**.**

**10.  Sum of all digits using while loop (n=123 output:1+2+3=6)**

**Code:**

#include <iostream>

using namespace std;

int main() {

int num, sum = 0;

cout << "Enter a positive integer: ";

cin >> num;

int temp = num;

while (temp != 0) {

sum += temp % 10;

temp /= 10;

}

cout << "Sum of digits of " << num << " = " << sum << endl;

return 0;

}

**Output:**

Enter a positive integer: 23

Sum of digits of 23 = 5