**18. Prime number using for loop**

**PROGRAM:**

#include <iostream>

using namespace std;

int main() {

int num;

bool isPrime = true;

cout << "Enter a positive integer: ";

cin >> num;

if (num <= 1) {

isPrime = false;

} else {

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

if (num % i == 0) {

isPrime = false;

break;

}

}

}

if (isPrime) {

cout << num << " is a prime number." ;

} else {

cout << num << " is not a prime number.";

}

return 0;

}

**OUTPUT:**

