7.Write a program to read a number from the key board and pass it to a function to determine whether its prime or composite.

Coding:

#include <iostream>

// Function declaration

bool isPrime(int number);

int main() {

int num;

// Input a number from the user

std::cout << "Enter a number: ";

std::cin >> num;

// Check if the number is prime or composite

if (num <= 1) {

std::cout << num << " is neither prime nor composite." << std::endl;

} else if (isPrime(num)) {

std::cout << num << " is a prime number." << std::endl;

} else {

std::cout << num << " is a composite number." << std::endl;

}

return 0;

}

// Function definition

bool isPrime(int number) {

if (number <= 1) return false; // 0 and 1 are not prime

if (number <= 3) return true; // 2 and 3 are prime

if (number % 2 == 0 || number % 3 == 0) return false; // Multiple of 2 or 3

for (int i = 5; i \* i <= number; i += 6) {

if (number % i == 0 || number % (i + 2) == 0) return false;

}

return true;

}

