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#include <iostream>
#include <cstdlib>
#include <ctime>
using namespace std;

int main() {
    // Seed the random number generator with the current time
    srand(static_cast<unsigned int>(time(0)));

    // Generate a random number between 1 and 100
    int randomNumber = rand() % 100 + 1;
    int guess = 0;
    int attempts = 0;

    cout << "Welcome to the Number Guessing Game!" << endl;
    cout << "I have selected a number between 1 and 100." << endl;
    cout << "Can you guess what it is?" << endl;

    // Loop until the user guesses the correct number
    while (guess != randomNumber) {
        cout << "Enter your guess: ";
        cin >> guess;
        attempts++;

        if (guess > randomNumber) {
            cout << "Too high! Try again." << endl;
        } else if (guess < randomNumber) {
            cout << "Too low! Try again." << endl;
        } else {
            cout << "Congratulations! You guessed the correct number: " <<
randomNumber << endl;
            cout << "It took you " << attempts << " attempts to guess the number."
<< endl;
        }
    }

    return 0;
}

```

Output

Welcome to the Number Guessing Game!

I have selected a number between 1 and 100.

Can you guess what it is?

Enter your guess: 5

Too low! Try again.

Enter your guess: 85

Too high! Try again.

Enter your guess: 50

Too high! Try again.

Enter your guess: 45

Too low! Try again.

Enter your guess: 46

Too low! Try again.

Enter your guess: 47

Too low! Try again.

Enter your guess: 48

Congratulations! You guessed the correct number: 48

It took you 7 attempts to guess the number.