

C++ Program to Find G.C.D Using Recursion

To understand this example, you should have knowledge of following [C++ programming](#) topics:

[C++ Functions](#)

[C++ User-defined Function Types](#)

[C++ if...else and Nested if...else](#)

[C++ Recursion](#)

This program takes two positive integers from user and calculates GCD using recursion. Visit this page to learn, how you can [calculate GCD using loops](#).

Source code to Calculate H.C.F using recursion

```
/* Example to calculate GCD or HCF using recursive function. */

#include <iostream>
using namespace std;
int hcf(int n1, int n2);
int main()
{
    int n1, n2;
    cout << "Enter two positive integers: ";
    cin >> n1 >> n2;
    cout << "H.C.F of " << n1 << " & " << n2 << " is: " << hcf(n1, n2);
    return 0;
}

int hcf(int n1, int n2)
{
    if (n2!=0)
        return hcf(n2, n1%n2);
    else
        return n1;
}
```

Output

```
Enter two positive integers: 366 60
H.C.F of 366 and 60 is: 6
```

Similar C++ Programming Examples

[C++ program to Calculate the Power of a Number Using Recursion](#)

[C++ program to Calculate Factorial of a Number Using Recursion](#)

[C++ program to Find Sum of Natural Numbers using Recursion](#)

[C++ Program to Calculate Sum of Natural Numbers](#)

[C++ Program to Calculate Standard Deviation](#)