Write a function called  $\gcd$  that returns the greatest common divisor of two integers. For example  $\gcd(25, 35) = 5$ ,  $\gcd(4, 12) = 4$ ,  $\gcd(9, 16) = 1$ . Use the code below as a starting point, and don't change the main function.

```
#include <iostream>
using namespace std;

// Write your function here.

int main() {
    cout << gcd(38, 57) << endl; // 19
    cout << gcd(10000, gcd(990, 810)) << endl; // 10
    cout << gcd(2*2*3*3*5, 7*7*13) << endl; // 1
    cout << gcd(7*23*191, 2*7*29*191) << endl; // 1337
    cout << gcd(283746, 283747) << endl; // 1
}</pre>
```