```cpp
#include <iostream>
#include <numeric>
#include <algorithm>
#include <iterator>
#include <vector>

using namespace std;

int main() {
  int i = 35, j = 13;

  cout << gcd(i, j) << ", " << lcm(i, j) << "\n";

  i = 8;
  j = 12;

  cout << gcd(i, j) << ", " << lcm(i, j) << "\n";

  vector<int> num1 { 6, 3, 8, 12, 24, 13, 5, 35 };
  vector<int> out;

  //Use it as a binary predicate
  adjacent_difference(begin(num1), end(num1), back_inserter<vector<int>>(out),
      &std::gcd<int, int>);


  copy(begin(out), end(out), ostream_iterator<int>(std::cout, " "));
  cout << "\n";

  return 0;
}
```