## Subsequence with GCD in C++

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

class SubsequencewithGCD {
public:
    static void main() {
        int arr[] = {1, 2, 3, 4};
        int n = sizeof(arr) / sizeof(arr[0]);

        int ans = 0;
        for (int i = 0; i < n; i++) {
            ans = gcd(ans, arr[i]);
        }

        if (ans == 1) {
            cout << "true" << endl;
        } else {
            cout << "false" << endl;
        }
    }

    static int gcd(int a, int b) {
        if (b == 0) {
            return a;
        } else {
            return gcd(b, a % b);
        }
    }
};

int main() {
    SubsequencewithGCD::main();
    return 0;
}
```

**Dry Run on Given Input**

arr[] = {1, 2, 3, 4}

Let's compute:

| Step | i | arr[i] | Current GCD (ans) |
|------|---|--------|-------------------|
| 1 | 0 | 1 | gcd(0, 1) = 1 |
| 2 | 1 | 2 | gcd(1, 2) = 1 |
| 3 | 2 | 3 | gcd(1, 3) = 1 |
| 4 | 3 | 4 | gcd(1, 4) = 1 |

☑ Final GCD = 1 → So the output will be:

true

✅ **Output**

true

true