



Why __gcd() is throwing error in macOS mojave?


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

using namespace std;

int main() {
    int n;
    cin >> n;
    vector<int> a(n);

    for(int i = 0; i < n; ++i)
        cin >> a[i];

    int ans = a[0];
    for(int i = 1; i < n; ++i)
        ans = __gcd(ans, a[i]);

    cout << ans << endl;

    return 0;
}
```

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It is throwing the following error:

error: static_assert failed due to requirement '!is_signed::value'

note: in instantiation of function template specialization 'std::__1::__gcd' requested here ans = __gcd(ans, a[i]);

I am using command g++ -std=c++17 which worked for every program except this one.

This code is working without error on code.hackerearth.com online compiler which uses g++ 5.4.0

EDIT: Removed bits/stdc++.h header and included required headers only.

After removing also the same problem is happening.


The SAME code is running properly in online ide. Link of one such ide is [ONLINE IDE](#)


Using their c++ compiler and function __gcd(a, b) doesn't give any error but, when I change it to gcd(a, b) in the same ide, it does give error that this function definition is not found.

When I run the same code in my local machine, everything happens in just the opposite way. __gcd(a, b) doesn't work while gcd(a, b) works.

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3 __gcd is private, don't use it... What is not clear in the error message? It only works with unsigned types. – [Marc Glisse](#) Oct 20 '18 at 13:30 ✎

Which compiler are you using? g++ or clang++? – [user202729](#) Oct 20 '18 at 13:30

3 Please read [Why should I not #include <bits/stdc++.h>?](#) – [Some programmer dude](#) Oct 20 '18 at 13:32

1 @vivek: that is unfortunate. Still no excuse to use a implementation-private function – [MSalters](#) Oct 21 '18 at 9:40


@vivek: the implementation-private part refers to __gcd. Double underscores signify nonstandard functions for implementation-internal use. The header was another problem – [MSalters](#) Oct 24 '18 at 13:34


3 Answers

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▲ Don't use `bit/c++.h`, it's a private header.

2 Use proper C++ functions: <https://en.cppreference.com/w/cpp/numeric/gcd>

▼ They support signed integers.



```
#include <iostream>
#include <vector>
#include <numeric>

using namespace std;

int main() {
    int n;
    cin >> n;
    vector<int> a(n);

    for(int i = 0; i < n; ++i)
        cin >> a[i];

    int ans = a[0];
    for(int i = 1; i < n; ++i)
        ans = gcd(ans, a[i]);

    cout << ans << endl;

    return 0;
}
```

works with `clang++ -std=c++17`.

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edited Oct 20 '18 at 13:36

answered Oct 20 '18 at 13:32



Matthieu Brucher

20.2k 7 32 52

1 This does not answer the question. – [user202729](#) Oct 20 '18 at 13:32

Besides, the function is from c++17 only. – [user202729](#) Oct 20 '18 at 13:33


1 Which is available on Mojave. – [Matthieu Brucher](#) Oct 20 '18 at 13:33


This code is working without error on code.hackerearth.com online compiler which uses g++ 5.4.0

– [Anonymous](#) Oct 20 '18 at 15:31

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As the other answer says, use the standard `std::gcd` instead of a non-standard `__gcd`, if possible.

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That said, the error means that `__gcd` only works on unsigned integers. Change the types of your variables from `int` to `unsigned int`.



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answered Mar 31 at 15:18



HolyBlackCat

52k 7 89 147



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

0



As in my mac '`__gcd()`' is also not working and showing that "use of undeclared identifier" so I have to predefine this function.

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edited Mar 31 at 15:25



cigien

52.6k 11 44 82

answered Dec 20 '20 at 4:38



Aayush Shah

346 3 10

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