Submission

ID	DATE	PROBLEM	STATUS	CPU	LANG
	TEST CASES				
8201516	15:18:56	Collatz Conjecture	✔ **Accepted**	0.02 s	C++
	✔✔				

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FILENAME	FILESIZE	SHA-1 SUM	
collatz.cpp	1270 bytes	7518b020058a8670d9dd8d07ee37ca51c3fcb405	download

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collatz.cpp

```
 1  #include<bits/stdc++.h>
 2
 3  #define INF 999999
 4  #define ll long long
 5
 6  using namespace std;
 7
 8  int main(){
 9
10      int n1, n2;
11      e (cin>>n1>>n2 && n1!=0 && n2!=0) {
12
13          ll n1pasos = 0;
```

Help

```cpp
14          ll n2pasos = 0;
15          unordered_map<ll, ll> secuencia;
16          ll nIT = n1;
17          secuencia[nIT] = n1pasos;
18
19          while(true) {
20
21              if(nIT == 1){
22                  break;
23              }
24
25              n1pasos++;
26              if(nIT % 2 == 0)
27                  nIT /= 2;
28
29              else
30                  nIT = nIT * 3 + 1;
31
32              secuencia[nIT] = n1pasos;
33          }
34
35          ll nIT2 = n2;
36          while (true) {
37
38              if (secuencia.find(nIT2) != secuencia.end()) {
39
40                  ll countNum1 = secuencia[nIT2];
41                  ll countNum2 = n2pasos;
42                  cout<<n1<<" needs "<<countNum1<<" steps, "<<n2<<" needs "<<countNum2<<" steps, ";
43                  cout<<"they meet at "<<nIT2<<endl;
44                  break;
45
46              }
47
48              if (nIT2 % 2 == 0) {
49                  nIT2 /= 2;
50              }
51              else {
52                  nIT2 = nIT2 * 3 + 1;
53              }
54              n2pasos++;
55          }
56      }
57  return 0;
```

Help

58   }