Elite-S016-Algorithms

Solved Challenges **1/2**

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HCF of N Integers

ID:11089   **Solved By 720 Users**

The program must accept **N** integers as the input. The program must print the HCF of the N integers as the output.

Boundary Condition(s):
2 <= N <= 100
1 <= Each integer value <= 10^18

Input Format:
The first line contains N.
The second line contains N integers separated by a space.

Output Format:
The first line contains the HCF of the N integers.

Example Input/Output 1:
Input:
4
15 20 30 50

Output:
5

Example Input/Output 2:
Input:
5
14 28 35 70 92

Output:
1

Max Execution Time Limit: 1000 millisecs

Ambiance

C (gcc 8.x)   ⌄

Reset

```c
1   #include<stdio.h>
2   #include<stdlib.h>
3   #define ULL unsigned long long int
4   ULL hcf(ULL a,ULL b)
5   {
6       if(b==0)
7       return a;
8       else
9       return hcf(b,a%b);
10  }
11  int main()
12  {
13      int N;
14      scanf("%d",&N);
15      ULL arr[N];
16      for(int index=0;index<N;index++)
17      scanf("%llu",&arr[index]);
18
19      ULL Hcf = hcf(arr[0],arr[1]);
20      for(int index=2;index<N;index++)
21      {
22          Hcf = hcf(Hcf,arr[index]);
23      }
24
25      printf("%llu",Hcf);
26
27  }
```

Custom test case has passed.

SUCCESS

You have executed a custom test case. Kindly un-check "Run with a custom test case (Input/Output)" to execute challenge test cases.

Save   Run

☐ Run with a custom test case (Input/Output)