

You have got an array of integers. Each element in the array is a non-negative integer. You have also got two other non-negative integers  $L$  and  $R$  such that  $(L \leq R)$ . Your task is to find the number of integers between  $L$  and  $R$  by which each number in the given array is divisible.

For example, if the given array is  $[2, 4, 6, 2, 10]$ ,  $L=2$  and  $R=5$ . The only integer situated inclusively between 2 and 5 and dividing each element in the array is 2. So, in this case the answer is 1 since there is only one integer satisfying the required property.

**Input format and constraints:**

- An integer  $n$  inclusively between 1 and  $2 \times 10^5$ , representing the size of the array
- $n$  non-negative integers representing the elements in the array, each not exceeding  $10^{12}$
- $L$  and  $R$  such that  $0 < L \leq R$  and  $R \leq 10^{18}$

**Output:** a single integer representing the required answer.

**Sample input 1:** 5  
1 2 3 4 5  
1 1000

**Sample output 1:** 1

**Sample input 2:** 6  
6 90 12 18 30 18  
3 1000000000000000000

**Sample output 2:** 2