



# STUDENT REPORT

## DETAILS

Name

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Roll Number

KUB23ECE035

## EXPERIMENT

Title

SUM OF NUMBERS AT PRIME FACTORS

Description

Prime factors of a positive integer are the prime numbers that divide that integer exactly.

Given an array arr of n integers and a positive integer num.

Let's suppose prime factorization of num is:  $p^a \times q^b \times r^c \times \dots \times z^f$ , where p,q,r...z are prime numbers.

Sum of numbers in array arr at indices of prime factors of number num is:  $a \times arr[p] + b \times arr[q] + c \times arr[r] + \dots + f \times arr[z]$ .

You are given an array arr of size n and a positive integer num. You are required to calculate the sum of numbers in arr as mentioned above, and print the same.

Note:

- If arr is empty, print -1.
- If prime factor of num not found as indices, print 0.

Input Format:

The input consists of three lines:

- The first line contains an integer, i.e. n.
- The second line contains an array arr of length of n.
- The third line contains an integer num

The input will be read from the STDIN by the candidates.

Output Format:

Print the sum that was mentioned in the problem statement.

Example:

Input:

6  
  
11 21 32 45 1 23  
  
6

Output:

77

Explanation:

6=2<sup>1</sup> x 3<sup>1</sup>

sum=1\*arr[2]+1\*arr[3]=1\*32+1\*45=77

Source Code:

```
N=int(input())
A=list(map(int,input().strip().split()))[:N]
A.sort()
avg=(A[N-1]+A[N-2])/2
answer=0
for i in A:
    if i>=avg:
        answer+=i
    print(answer)
```

RESULT

0 / 5 Test Cases Passed | 0 %