☆ Largest Subset Sum

Given an integer, k, we want to find the largest subset of integers in the inclusive range from *1* to k such that the Least Common Multiple (LCM) of the elements in the subset is equal to k. We then want to find the *sum* of all integers in this subset.

Complete the *maxSubsetSum* function in the editor below. It has one parameter: an array of n integers, k. The function must return an array of n long integers where the value at each index i (where $0 \leq i < n$), denotes the *sum* of the elements in the largest subset of integers in the inclusive range from *1* to k_i such that the LCM of the elements in the subset is k_i.

Input Format

The first line contains an integer, n, denoting the number of elements in k.
Each line i of the n subsequent lines (where $0 \leq i < n$) contains an integer describing k_i.

Constraints

- $1 \leq n \leq 10^3$
- $1 \leq k_i \leq 10^9$

Output Format

The function must return an array of n long integers where the value at each index i (where $0 \leq i < n$), denotes the sum of the elements in the largest subset of numbers in the inclusive range from *1* to k_i such that the LCM of the elements in the subset is k_i.

Sample Input 0

```
2
2
4
```

Sample Output 0

```
3
7
```

Explanation 0

Given k = *[2, 4]*, we perform the following sequence of operations to fill our return array, *sums*:

2, 4], so we set *sums* = 7 + 2 + 4 = 7.

We then return *sums = [3, 7]* as our answer.

YOUR ANSWER

We recommend you take a quick tour of our editor before you proceed.
The timer will pause up to 90 seconds for the tour. Start tour

Original code | Java 7

```
1 ▸ import ↔;
6
7   public class Solution {
8
9 ▾ /*
10   * Complete the function below.
11   */
12
13 ▾     static long[] maxSubsetSum(int[] k) {
14
15
16      }
17
18
19 ▸     public static void main(String[] args) throws IOException{↔}
42  }
```

Line: 12 Col: 1

Run Code | Submit code & Continue

(You can submit any number of times)

Test against custom input

4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22