Magical GCD

The *Magical GCD* of a nonempty sequence of positive integers is defined as the product of its length and the greatest common divisor of all its elements.

Given a sequence $(a_1, \ldots, a_n)$, find the largest possible Magical GCD of its connected subsequences.

Input

The first line of input contains the number of test cases T. The descriptions of the test cases follow:

The description of each test case starts with a line containing a single integer n, $1 \le n \le 100\,000$. The next line contains the sequence $a_1, a_2, \ldots, a_n$, $1 \le a_i \le 10^{12}$.

Output

For each test case output one line containing a single integer: the largest Magical GCD of a connected subsequence of the input sequence.

Sample Input 1

```
1
5
30 60 20 20 20
```

Sample Output 1

```
80
```