A. Programming contest

Description

Lanran wants to hold a programming contest with at most 3 problems. He has a pool of n problems and the difficulty of each problem is a_i. There are some requirements of the contest: The difficulties of the chosen problems are not divisible by each other, while Lanran wants the sum of the difficulties is as large as possible. Lanran can not choose 2 problems with the same difficulty as well. Please output the maximum sum.

Input format

The first line contains one integer $T(1 \leq T \leq 10)$ indicating the number of test cases.

For each test case, the first line contains one integer $n(1 \leq n \leq 200\ 000)$.

The second line contains n integers, $a_1, a_2, \ldots, a_n(1 \leq a_i \leq 200\ 000)$.

Output format

Output one integer for one test case, indicating the answer.

Sample input

```
2
4
10 6 30 15
4
5 6 15 30
```

Sample output

```
31
30
```

Limitations & Hints

1 second for each test case. The memory limit is 256MB.

For 40% of the test cases, $n \leq 500, a_i \leq 200$.

For 60% of the test cases, $n \leq 5000$.

For 100% of the test cases, $n, a_i \leq 200\ 000$.