Weird Modulo Problem

All submissions for this problem are available.You are given an array A of N positive and pairwise distinct integers. You can permute the elements in any way you want.
The cost of an ordering $(A1,A2,\ldots,AN)$ is defined as $(((A1 \bmod A2) \bmod A3).....) \bmod AN$ where $X \bmod Y$ means the remainder when X is divided by Y. You need to find the maximum cost which can be attained through any possible ordering of the elements.

Input:

- The first line contains T denoting the number of test cases.
- The first line of each testcase contains a single integer N.
- The second line of each testcase contains N space-separated integers, the elements of A.

Output:

- For each testcase, output the maximum possible cost in a new line.

Constraints

- $1 \leq T \leq 5 * 10^5$
- $2 \leq N \leq 5 * 10^5$
- $1 \leq Ai \leq 10^9$
- Sum of N over all testcases is less than or equal to 10^6
- All elements in a single testcase are distinct.

Subtasks

- 100 points : Original constraints.

Sample Input:

```
1

2

7 12
```

Sample Output:

```
7
```

Explanation:

The two possible ways to order the elements are [7, 12] and [12, 7]. In the first case, the cost is $7 \bmod 12 = 7$7mod12=7 and in the second case the cost is $12 \bmod 7 = 5$12mod7=5. Clearly the answer is 7.

Source – CodeChef.