A. Battle of Kursk

Time limit: 1s
Memory limit: 512MB

Given a positive integer array $a_1, a_2, \ldots, a_n$, you need to select two distinct indices $1 \leq i, j \leq n$ to maximize the value of

$$\max(a_i, a_j) \bmod \min(a_i, a_j).$$

Input Format

There are multiple test cases in each test file.

- The first line contains a single integer T, the number of test cases.
- Each test case consists of:
  - A line containing an integer n.
  - A line containing n positive integers $a_1, a_2, \ldots, a_n$.

Output Format

For each test case, output a single integer on its own line: the maximum achievable result.

Sample 1

Input

```
2
5
1 2 3 4 5
10
1 67 11 49 103 527 44 61 138 113
```

Output

```
2
113
```

Explanation

- **Test 1**: Choose indices 3 and 5, with values 3 and 5. The result is $5 \bmod 3 = 2$, which is maximal.
- **Test 2**: Choose indices 6 and 9, with values 527 and 138. The result is $527 \bmod 138 = 113$, which is maximal.

Sample 2 & 3

See attached files for details.

Constraints and Notes

This problem uses bundled testing, and all reasonable subtask dependencies are enabled.

Let the sum of all n values across test cases in one file be $\sum n$.

For all test data, $2 \le n, \sum n \le 5 \times 10^5$, and $1 \le a_i \le 10^{18}$.

- **Subtask 1 (10 pts):** $\sum n \le 5000$
- **Subtask 2 (15 pts):** $a_i \le 10^6$
- **Subtask 3 (25 pts):** a_i are independently uniformly random in $[1, 10^{18}]$, with at most 5 test cases
- **Subtask 4 (30 pts):** $\sum n \le 5 \times 10^4$
- **Subtask 5 (20 pts):** No additional constraints