

Kevin and Geometry

Input file: **standard input**
Output file: **standard output**
Time limit: 1 second
Memory limit: 256 megabytes

Kevin has n sticks with length a_1, a_2, \dots, a_n .

Kevin wants to select 4 sticks from these to form an isosceles trapezoid* with a positive area. Note that rectangles and squares are also considered isosceles trapezoids. Help Kevin find a solution. If no solution exists, output -1 .

Input

Each test contains multiple test cases. The first line contains the number of test cases t ($1 \leq t \leq 10^4$). The description of the test cases follows.

The first line of each test case contains a single integer n ($4 \leq n \leq 2 \cdot 10^5$).

The second line contains n integers a_1, a_2, \dots, a_n ($1 \leq a_i \leq 10^8$).

It is guaranteed that the sum of n over all test cases does not exceed $2 \cdot 10^5$.

Output

For each test case, output 4 integers — the lengths of sticks. If no solution exists, output -1 .

If there are multiple solutions, print any of them.

Example

standard input	standard output
7	5 5 5 10
4	5 5 10 10
5 5 5 10	-1
4	-1
10 5 10 5	1 1 4 5
4	-1
1 2 3 4	100000000 100000000 1 2
4	
1 1 1 3	
6	
4 2 1 5 7 1	
6	
10 200 30 300 30 100	
4	
100000000 100000000 1 2	

Note

In the first test case, you can form an isosceles trapezoid with bases of length 5 and 10, and two legs of length 5.

In the second test case, you can form an isosceles trapezoid with two bases of length 5 and two legs of length 10. A rectangle is considered an isosceles trapezoid here.

In the third test case, there are no sticks with the same length. It's impossible to form an isosceles trapezoid.

*An *isosceles trapezoid* is a convex quadrilateral with a line of symmetry bisecting one pair of opposite sides. In any isosceles trapezoid, two opposite sides (the bases) are parallel, and the two other sides (the legs) are of equal length.

In the fourth test case, it's impossible to form an isosceles trapezoid with a positive area.