

Problem C. Triangle Partition

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

Chiaki has $3n$ points p_1, p_2, \dots, p_{3n} . It is guaranteed that no three points are collinear.

Chiaki would like to construct n disjoint triangles where each vertex comes from the $3n$ points.

Input

There are multiple test cases. The first line of input contains an integer T , indicating the number of test cases. For each test case:

The first line contains an integer n ($1 \leq n \leq 1000$) – the number of triangle to construct.

Each of the next $3n$ lines contains two integers x_i and y_i ($-10^9 \leq x_i, y_i \leq 10^9$).

It is guaranteed that the sum of all n does not exceed 10^4 .

Output

For each test case, output n lines contain three integers a_i, b_i, c_i ($1 \leq a_i, b_i, c_i \leq 3n$) each denoting the indices of points the i -th triangle use. If there are multiple solutions, you can output any of them.

Example

standard input	standard output
1	1 2 3
1	
1 2	
2 3	
3 5	