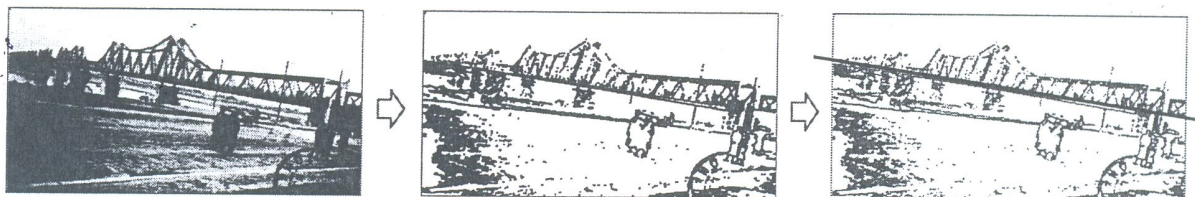


## Problem H – Photo Leveling



Little Long is now pursuing his Ph.D. degree at a distinguished university on the field of image processing. He joins a team to develop an automatic rotation function for a photo editing app. One potential solution is finding the dominant line in the photo, and then aligning it horizontal or vertical. Typically, this dominant line is a straight edge of an object such as the skyline or the edges of buildings. The team has successfully implemented an edge detection algorithm which can output a set of candidate pixels that potentially belongs to the edges of objects. His task is finding the maximum subset of collinear pixels, which are on the dominant line. In addition, he only need to implement a solution for the first testing phase; where there are always at least 60 percent of the input pixels on the dominant line.

### Input

The first line contains an integer number  $K$  denotes the number of test cases. Following lines are in  $K$  groups where each group describes one test case in some lines as follow:

- First line in the group contains the number of pixels  $5 \leq N \leq 100000$ ,
- Each in the following  $N$  lines contains two coordinates  $x_i, y_i$  of the  $i^{\text{th}}$ -pixel. These coordinates are integer numbers in range of  $-10^9$  to  $10^9$ .

### Output

For each test case in the input, you need to write two lines to the output:

- The first line should contain the maximum number of collinear pixels  $M$ ,
- The second line should contain  $M$  indices of collinear pixels. The indices should be printed in ascending order with exactly one space in between two consecutive numbers. For consistency, you should also use the one-based numbering, i.e. the index of input pixels starts from 1.

### Sample

| Sample input   | Output for sample input  |
|--|--------------------------|
| <pre> 1 8 0 1 7 4 -1 0 1 1 -9 -4 -7 -3 1 10 6 6 </pre> | <pre> 5 2 3 4 5 6 </pre> |