Now commander of Terran, a general name for human unit, has to make a hard decision. In the past few months of battle, we recovered most of the planets which we lost at the beginning. However greedy Zerg, a general name



for alien intelligent pests, has found our purpose and strengthened the defense of all the remaining planets they still control. This has made a great trouble that in our action "debug" if we cannot counter them and get at least one more planet to work as spring board, we may fall in to a long period of waiting. There are still several planets available for us to attack. But some of them do not have enough material for us to construct supply depots and some have powerful defense. By the study of our ghost specters, we can draw a picture of all the N planets in a set, using a positive number to imply the strategic value of each and each planet will also be labeled with a **number mark** from 1 to N. For a given set of planets, tactical experts will tell you that the planet with **I-th** smallest strategic value is the best one to attack. (If two planets have the same strategic value, they will be ordered by their labeled number in an increasing order). Now commander, the action code "debug" is on! Can you design a program for your central computer to tell your infantry what's the target in the given set of planets?

Input:

Input begins with an integer T (1<T<50) indicating the number of test cases. For each test case the first line contains two integers N (2<N<100) and I (1<=I<N). Then there are N lines with one integer each line. The n-th line's number shows the strategic value of planet with number mark n.

Output:

For each test case output the number mark of the target planet and its strategic value separated by a space in a single line.

Example input

Example output

Zimipi input	
3	2 4
3 2	5 4
5	4 6
4	
3	
5 5	
2	
2	
1	
4	
4	
5 2	
4	
7	
9	
6	
6	