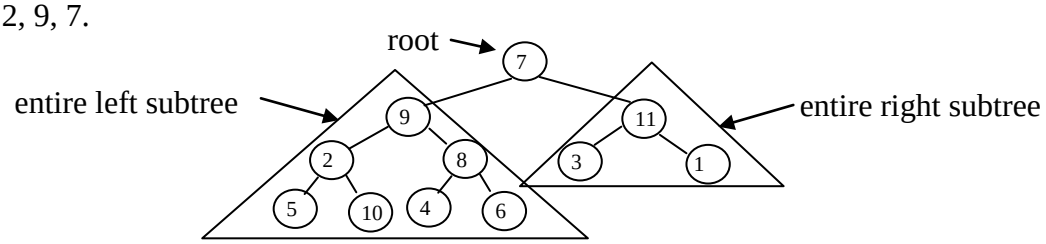
Eating Frenzy
Input File: EatingFrenzyIn.txt

Nora conducts an annual high school programming competition, which is followed by an eating frenzy and an awards ceremony. The competition results – a list of team numbers - are not divulged until the awards ceremony is completed, and so Nora has developed a scheme to encrypt the results. The *un*encrypted results list is simply a list of team numbers sorted in ascending order in the order in which the teams finished.

To generate the encrypted list, Nora "visualizes" the unencrypted results list as a left balanced binary tree (see below) and then outputs the tree's entire right subtree, followed by its entire left subtree and finally the root of the tree, recursively. For example, if the team 7 won the competition, team 9 finished second, team 11 was third,… and team 6 came in last, then the *un*encrypted results list could be: **7**, **9**, **11**, 2, 8, 3, 1, 5, 10, 4, **6**. In this case the encrypted list would be 1, 3, 11, 6, 4, 8, 10, 5, 2, 9, 7.



Your task is to automate the translation of the results list into the encrypted list, so that Nora has time to participate in the eating frenzy.

Inputs:
The first line of input contains the number of cases to consider. This will be followed by two lines of input per case. The first of these lines will contain the number of teams in the competition. The second line will contain a sequence of integers, each separated by a space, which represents the *un*encrypted competition results list.

Output:
There will be one line of output per case. Each line will contain a sequence of integers, each separated by a space, which represents the *encrypted* results list.

Sample Inputs
2
11
7 9 11 2 8 3 1 5 10 4 6
32
6 4 23 10 14 2 15 5 19 30 1 18 32 9 7 21 29 11 3 27 31 13 16 20 17 25 24 8 28 22 26 12

Sample Outputs
1 3 11 6 4 8 10 5 2 9 7
26 22 7 28 8 9 15 24 25 32 17 20 18 2 23 16 13 1 31 27 30 14 3 11 19 29 12 21 5 10 4 6