## horizontal line

## **Median in a stream of running integers**

## **Problem Statements :**

You are given a running data stream of n integers. You read all integers from that running data stream and find effective median of elements read so far in efficient way. All numbers are distinct in the data stream.

**Input Format :**

First line contains integer t as number of test cases.

Each test case contains following input. First line contains integer n which represents the length of the data stream and next line contains n space separated integers.

**Constraints :**

1 < t < 100

1< n < 1000

**Output Format :**

Print the effective median of running data stream..

**Sample Input :**

1

6

5 15 1 3 2 8

**Sample Output :**

5 10 5 4 3 4

**Explanation :**

Read print

5 5

5 15 ([5+15]/2)=10

5 15 1 (1 5 15) 5

5 15 1 3 (1 3 5 15) (5+3)/2 = 4

So on….

**Time Limit :**