## horizontal line

## **Top k most frequent number in a stream**

## **Problem Statements :**

Given an array of n numbers. Your task is to read numbers from the array and keep at-most K numbers at the top (according to their decreasing frequency) every time a new number is read. We basically need to print top k numbers sorted by frequency when input stream has included k distinct elements, else need to print all distinct elements sorted by frequency. If frequency of two numbers are same then print them in increasing order.

**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 array and next line contains n space separated integers.

**Constraints :**

1 < t < 100

1< n < 100000

**Output Format :**

Print top k running stream.

**Sample Input :**

1

5 2

5 1 3 5 2

**Sample Output :**

5 1 5 1 3 5 1 5 1

**Explanation :**

Read print

5 5

5 1 1 5

5 1 3 1 3

5 1 3 5 5 1

5 1 3 5 5 1

**Time Limit :**