3686 - Max of the K

Description

Given a list of *N* integer numbers A_1, A_2, ..., A_N and a positive integer number *K* *N*, you must output *N*-*K*+1 numbers: maximum (A_1, A_2, ..., A_K), maximum (A_2, A_3, ..., A_{K+1}), maximum (A_3, A_4, ..., A_{K+2}), ..., maximum (A_{N-K+1}, A_{N-K+2}, ..., A_N).

Input specification

The first line of input contains an integer ***T* (0 < *T* 10^3)** denoting the number of test cases. Each case is composed by two lines. The first line of each case contains two space-separated integer numbers ***N*** and ***K* (0 < *K* *N* 10^6)** respectively. And the second line contains *N* space-separated integer numbers whose absolute values are less than or equal to **2^{31} - 1**. You can safely assume that sum of all values for *N* in a single file of input is lower or equal to **10^6**.

Output specification

For each case, you must output a line containing *N*-*K*+1 numbers: maximum (A_1, A_2, ..., A_K), maximum (A_2, A_3, ..., A_{K+1}), maximum (A_3, A_4, ..., A_{K+2}), ..., maximum (A_{N-K+1}, A_{N-K+2}, ..., A_N).

Sample input

```
1
5 3
8 3 1 4 5
```

Sample output

```
8 4 5
```

Hint(s)