Max Subarray

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	256 megabytes

A sub-array of array is an array composed from a contiguous block of the original array's elements.

In other words A sub-array **A[i-j]**, where $(1 \leq i \leq j \leq N)$, is a sequence of integers A_i, A_{i+1}, ..., A_j.

For Example :

IF array = **[1,6,3,7]** then the **subarrays** are **[1] , [6] , [3] , [7] , [1,6] , [6,3],[3,7], [1,6,3] , [6,3,7] , [1,6,3,7]** .

Something like **[1,3]** would not be a sub-array as it's not a contiguous subsection of the original array.

Given a number N and an array A of N numbers. Print the **maximum** number of every sub-array separated by space.

Input

First line contains a number T $(1 \leq T \leq 5)$ number of test cases.

Each test case contains two lines:

- First line contains a number N $(1 \leq N \leq 100)$ number of elements.
- Second line contains N numbers $(-10^5 \leq A_i \leq 10^5)$.

Output

For each test case print a single line contains the **maximum** number of every sub-array separated by space.

print the answer in any order.

Example

standard input	standard output
2 4 1 6 3 7 3 3 1 2	1 6 3 7 6 6 7 6 7 7 3 3 3 1 2 2

Note

First Case :

All Sub arrays are :

[1] , [6] , [3] , [7] , [1,6] , [6,3],[3,7], [1,6,3] , [6,3,7] , [1,6,3,7]

- Sub-array **[1]** it maximum number is **1**.
- Sub-array **[6]** it maximum number is **6**.
- Sub-array **[3]** it maximum number is **3**.
- Sub-array **[7]** it maximum number is **7**.
- Sub-array **[1,6]** it maximum number is **6**.
- Sub-array **[6,3]** it maximum number is **6**.

- Sub-array **[3,7]** it maximum number is **7**.
- Sub-array **[1,6,3]** it maximum number is **6**.
- Sub-array **[6,3,7]** it maximum number is **7**.
- Sub-array **[1,6,3,7]** it maximum number is **7**.

so the maximum numbers are **[1,6,3,7,6,6,7,6,7,7] you can print them in any order**.