

You are given an array `Arr` consisting of `N` integers and a non-negative integer `K`. Consider an operation on the array as replacing every element 'ele' of the array with `mx - ele`, where `mx` is the maximum element of the array. You need to return the updated array, given that this operation is performed on the array exactly `K` number of times.

Note:

1. The array follows 0-based indexing.
2. Note that after each operation, the next operation will be performed on the updated array i.e the array obtained after the last operation.

Input Format:

The first line of the input contains an integer `T` denoting the number of test cases.

The first line of each test case contains two integers `N` and `K`, denoting the size of the array and number of times operation is to be performed respectively.

The second line of each test case contains `N` space-separated integers denoting the array elements.

Output Format:

The only line of output of each test case should contain the array after `K` operations.

Note:

You do not need to print anything, it has already been taken care of. Just implement the given function.

Constraints:

$1 \leq T \leq 100$
 $1 \leq N \leq 10^4$
 $-10^9 \leq Arr[i] \leq 10^9$
 $0 \leq K \leq 10^9$
Time Limit: 1sec

Sample Input 1:

```
1
4 2
20 15 10 5
```

Sample Output 1:

```
15 10 5 0
```

Explanation For Sample Input 1:

The given array's 0-based indexing is as follows:

In the first operation, maximum = 20.

20	15	10	5
↓	↓	↓	↓
0	5	10	15

This will be the array values, after one operation.

In the second operation, maximum = 15.

0	5	10	15
↓	↓	↓	↓
15	10	5	0

Now the array to be returned is {15, 10, 5, 0}.

Sample Input 2:

```
1
4 3
0 0 9 18
```

Sample Output 2:

```
18 18 9 0
```