Swaraj and Chocoloates

Assignment 1
Data Structures
Due date: 10 January, 2019

Problem Statement: Swaraj likes chocolates. He has n bags containing chocolates which he keeps in a room in ascending order. Each bag contains chocolates numbered a_1, a_2 to a_n. His dog Loco is playful and moves some bags from their position. But since he is small he moves each bag to the left or right by at most k places. Swaraj wants to reset the bags to their original position as lazily as possible. Help Swaraj rearrange the bags.

Input
First line contains the number of test cases T. Each of these T test cases have 1st line as the number of elements in array N, then k. In the next line there are N space separated numbers a_i.

Output
Output the sorted array per line

Constraints
$1 \leq T \leq 500$
$1 \leq N \leq 100000$
$1 \leq k \leq 1000$
$1 \leq a_i \leq 1000000$
$k \leq N$

Time Limit: 1 sec
Memory Limit: 256 MB

Sample Test Case

Input	Output
2	2 3 5 6 8 9 10
7 3	4 7 8 9 10 50 60 70
6 5 3 2 8 10 9	
8 4	
10 9 8 7 4 70 60 50	