

Problem C: Concrete

SAO Construction Corp. is preparing to build a skyscraper. You are part of the resource procurement team, currently responsible for allocating concrete pieces for construction.

Your project manager is very lazy. When N concrete pieces arrive lined up in a straight line, he would just take the first K pieces for constructing the first floor of the building, the next K pieces for the second floor, and so on.

However, your personal motto is to always strive to build the strongest building possible, one that can withstand an earthquake of any magnitude. You firmly believe that the building's base forms its foundation. Your ideal approach is to use the K strongest concrete pieces for constructing the first floor, the next K strongest pieces for the second floor, and so forth.

Therefore, when your project manager is not looking, you would take one concrete piece and move it to another location within the concrete lines. Your task is to compute the minimum number of moves required to arrange the concrete to match (one of) your ideal order.

Input:

The first line of input is an integer T , representing the number of test cases. Each test case is described in two lines. The first line contains two numbers: N and K . The second line contains N numbers, describing the strength of each concrete piece in the order they line up.

Output:

For each test case, print the minimum number of moves needed to make the concrete match with (one of) your ideal order.

Sample Input	Sample Output
3 6 2 9 4 7 13 5 1 4 2 4 3 2 1 6 3 1 2 3 4 5 6	2 0 3

Explanation:

- Test case #1: This case requires at least two moves. One possible way is shown below

- First move



- Second move



- Final result



Note that the order of the concrete pieces within the same floor does not matter.

Constraints:

- $1 \leq T \leq 20$
- $1 \leq N, K \leq 5,000$
- N is always divisible by K
- $1 \leq \text{Strength value of each concrete} \leq 1,000,000,000$
- Each concrete piece always has a different strength value