Problem K: Top K for the Crown

Filename: `topk`

Time limit: `10 seconds`

After narrowly escaping defeat in the Final Substring Showdown, Arup challenged Christian to a rematch—this time with a game rooted in numerical intuition instead of string wizardry.

Christian, ever the tactician, pulled out a bag of numbers and made a bold claim:

"You pick any k numbers from this list—no repeats. Let's see if you can guess their sum faster than I can!"

Arup, never one to back down, accepted. But now the campers from the UCF Competitive Programming want in. Can you prove you're faster than both of them?

Problem
You are given a list of integers and an integer **k**. Your task is to find the sum of the **k** largest numbers in the list.

Input
Input will begin with a single integer **c**, the number of test cases. Each test case will consist of two lines:
- The first line contains two integers **n** and **k**, where **n** is the number of integers in the list.
- The second line contains **n** space-separated integers $a_1, a_2, ..., a_n$, the list of integers.

Output
For each test case, print a single integer on its own line: the sum of the top **k** largest numbers from the list.

Input Bounds and Corresponding Credit

50 Points
$1 \le c \le 20$ $1 \le n \le 10^6$ $-10^9 \le a_i \le 10^9$ $1 \le k \le n$

Samples

Input	Output
2	10
5 2 1 5 2 5 3	-4
6 3 -1 -2 -3 -2 -1 -5	