

## Lab4

### Problem 1

#### *Problem Statement:*

Given an array `arr` of size `n`, find the sum of the `k` largest elements in the array in  $O(n)$  time.

#### *Input:*

The first line of the input contains `n` ( $1 \leq n \leq 10^6$ ), the size of the array.

The second line contains the value of `k` ( $1 \leq k \leq n$ ).

The last line of the input the elementsthe elements of `arr` ( $10^{-9} \leq arr[i] \leq 10^9$ )

#### *Output:*

Print one line containing the sum of the `k` largest elements in `arr`.

#### *Sample Testcases:*

Input	Output
10 4 -1 4 3 -2 9 0 -5 3 1 -2	19
7 5 8 7 2 0 1 3 9	29
10 5 0 -1 1 0 -1 1 0 1 1 -1	4