Data Structures Assignment-3

Game of Windows

As you all know, Fersei is the always interested in playing the Game of Windows. Laenerys gives her a problem to test her skills. Fersie is stuck and needs your help as none wants to help her (obviously, I wouldn't). Would you help her solve this problem?
The problem goes as follows:
Given an array of n distinct integers and 2 integers, t and k, She's allowed to select any subarray/window of size t. From this subarray she has to select exactly k elements and sum them up. Now she wants to select such a subarray and chose the elements in such a way that the sum formed is maximum. Help her determine the maximum possible sum she can construct by choosing any subarray of size t and any k elements from it.

Input

First line contains 3 spaced integers, n, t and k which denote the size of the array, the size of the window and number of maximums to be considered in every window.
Second line contains n distinct spaced integers, i^{th} of which denotes the i^{th} element of the array, $a[i]$.

Output

Print a single integer denoting the maximum sum she constructs.

Constraints

$1 \leq n \leq 10^5$
$1 \leq t \leq n$
$1 \leq k \leq t$
$-10^5 \leq a[i] \leq 10^5$

Sample Input 1

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10 4 3
1 7 8 9 2 0 3 4 -1 10
```

Limits

Time: 2 seconds

Memory: 256 MB