

C. George and Job

time limit per test: 1 second

memory limit per test: 256 megabytes

input: standard input

output: standard output

The new iTone 6 has been released recently and George got really keen to buy it. Unfortunately, he didn't have enough money, so George was going to work as a programmer. Now he faced the following problem at the work.

Given a sequence of n integers p_1, p_2, \dots, p_n . You are to choose k pairs of integers:

$[l_1, r_1], [l_2, r_2], \dots, [l_k, r_k]$ ($1 \leq l_1 \leq r_1 < l_2 \leq r_2 < \dots < l_k \leq r_k \leq n$; $r_i - l_i + 1 = m$), in such a way that the value of sum is maximal possible. Help George to cope with the task.

Input

The first line contains three integers n, m and k ($1 \leq (m \times k) \leq n \leq 5000$). The second line contains n integers p_1, p_2, \dots, p_n ($0 \leq p_i \leq 10^9$).

Output

Print an integer in a single line — the maximum possible value of sum.

Examples

input
5 2 1 1 2 3 4 5
output
9
input
7 1 3 2 10 7 18 5 33 0
output
61

Codeforces Round #267 (Div. 2)

Finished

→ Virtual participation

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ACM-ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

Start virtual contest

→ Problem tags

dp implementation

No tag edit access

→ Contest materials

- Announcement