ICPC Assiut University Community

Juniors Phase 1 Training ,Do Your Best



HOME TOP CATALOG CONTESTS GYM PROBLEMSET GROUPS RATING EDU API CALENDAR HELP ICPC CHALLENGE 🖫

PROBLEMS SUBMIT CODE MY SUBMISSIONS STATUS STANDINGS CUSTOM INVOCATION

B. Aggressive cows

time limit per test: 1 second memory limit per test: 256 megabytes input: standard input output: standard output

Farmer John has built a new long barn, with n stalls. The stalls are located along a straight line at positions x_1, x_2, \ldots, x_n .

His c cows don't like this barn layout and become aggressive towards each other once put into a stall. To prevent the cows from hurting each other, Farmer John wants to assign the cows to the stalls, such that the minimum distance between any two of them is as large as possible. What is the largest minimum distance?

Input

The first line of input contains two integers n,c $(2 \le c \le n \le 10^5)$. The second line contains n number x_i $(1 \le x_i \le 10^9)$.

Output

print one integer the largest minimum distance.

Example

input	Сору
5 3 1 2 8 4 9	
output	Сору
3	

Note

Farmer John can put his 3 cows in the stalls at positions 1, 4 and 8, resulting in a minimum distance of 3.

<u>ICPC Assiut University Training -</u> <u>Standard - Juniors Phase 1</u>

Public

Participant



→ Group Contests



- Standard #4 (Binary search , two pointers)
- Standard #3 (set , sorting, compare function , map)
- Standard #2 (binary search, stack, queue, deque, priority queue)
- Standard #1 (Frequency, prefix sum, vector, pair, struct)

Standard #4 (Binary search , two pointers) Finished

-inisnea

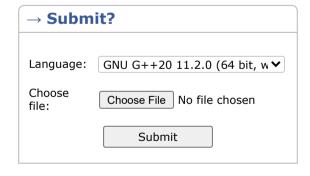
Practice



→ 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 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



→ Last submissions		
Submission	Time	Verdict
226627406	Oct/04/2023 19:12	Accepted
226615531	Oct/04/2023 18:33	Accepted