Problem: LAB.03.03 - Max-Distance Sub-Sequence

Description

Given N elements (2≤ N ≤100,000) on a straight line at positions x_1,..., x_N (0≤ x_i ≤1,000,000,000).

The distance of a subset of N elements is defined to be the minimum distance between two elements.

Find the subset of N given elements containing exactly C elements such that the distance is maximal.

Input

- The first line contains a positive integer T (1 <= T <= 20) which is the number of test cases.
- Subsequent lines are T test cases with the following format:
  - Line 1: Two space-separated integers: N and C
  - Lines 2: contains x1, x_2, . . . , x_N

Output

For each test case output one integer: the distance of the subset found.

Example

input

1

5 3

1

2

8

4

9

output

3

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

Sample TestCase

C 17

```
1  Write your Source code here
```

Source code

C 17

```c
//C
#include <stdio.h>

int main()
{

}
```

SUBMIT CODE

Or

C 17

Select file

SUBMIT

Tìm kiếm

ID	Bài tập	Trạng thái	Message	Điểm	Ngôn r
edfae8	MAX_DISTANCE_SUB_SEQ	Accept		100	CPP17

5 hàng 1-1 của 1