

TC2017 Análisis y Diseño de Algoritmos

Momento 2E – Angry Professor (hackerrank)

Ing. Luis Humberto González G / Ing. Román Martínez M.

Forma de Trabajo: Individual.

Forma de Entrega: Subir a Blackboard el código de tu solución y un archivo con la pantalla de Aceptado en la plataforma de hackerrank

El presente problema pertenece a hackerrank Online Judge (<https://www.hackerrank.com/>)

Angry Professor

URL: <https://www.hackerrank.com/challenges/angry-professor>

A Discrete Mathematics professor has a class of N students. Frustrated with their lack of discipline, he decides to cancel class if fewer than K students are present when class starts.

Given the arrival time of each student, determine if the class is canceled.

Input Format

The first line of input contains T , the number of test cases.

Each test case consists of two lines. The first line has two space-separated integers, N (students in the class) and K (the cancelation threshold). The second line contains N space-separated integers (a_1, a_2, \dots, a_N) describing the arrival times for each student.

Note: Non-positive arrival times ($a_i < 0$) indicate the student arrived early or on time; positive arrival times ($a_i > 0$) indicate the student arrived a_i minutes late.

Constraints

$$1 \leq T \leq 10$$

$$1 \leq N \leq 1000$$

$$1 \leq K \leq N$$

$$-100 \leq a_i \leq 100, \text{ where } i \in [1, N]$$

Output format

For each test case, print the word YES if the class is canceled or NO if it is not.

Note

If a student arrives exactly on time ($a_i = 0$), the student is considered to have entered before the class started.

Sample Input

```
2
4 3
-1 -3 4 2
4 2
0 -1 2 1
```

Sample Input

```
YES
NO
```