

Angry Professor

Problem Statement

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 ($a_i \leq 0$) indicate the student arrived early or on time; positive arrival times ($a_i > 0$) indicate the student arrived a_i minutes late.

Output Format

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

Constraints

- $1 \leq T \leq 10$
- $1 \leq N \leq 1000$
- $1 \leq K \leq N$
- $-100 \leq a_i \leq 100$, where $i \in [1, N]$

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 Output

```
YES
NO
```

Explanation

For the first test case, $K = 3$. The professor wants at least 3 students in attendance, but only 2 have arrived on time (-3 and -1). Thus, the class is canceled.

For the second test case, $K = 2$. The professor wants at least 2 students in attendance, and there are 2 who have arrived on time (0 and -1). Thus, the class is *not* canceled.