# Angry Professor

HackerRank

**Problem Statement**

The professor is conducting a course on Discrete Mathematics to a class of $N$ students. He is angry at the lack of their discipline, and he decides to cancel the class if there are less than $K$ students present after the class starts.

Given the arrival time of each student, your task is to find out if the class gets cancelled or not.

**Input Format**

The first line of the input contains $T$, the number of test cases. Each test case contains two lines.
The first line of each test case contains two space-separated integers, $N$ and $K$.
The next line contains $N$ space-separated integers, $a_1, a_2, \ldots, a_N$, representing the arrival time of each student.

If the arrival time of a given student is a non-positive integer ($a_i \le 0$), then the student enters before the class starts. If the arrival time of a given student is a positive integer ($a_i \gt 0$), the student enters after the class has started.

**Output Format**

For each testcase, print *"YES"* (without quotes) if the class gets cancelled and *"NO"* (without quotes) otherwise.

**Constraints**

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

**Note**
If a student enters the class exactly when it starts $(a_i = 0)$, the student is considered to have entered before the class has 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, $K = 3$, i.e., the professor wants at least $3$ students to be in class but there are only 2 who have arrived on time ($-3$ and $-1$), hence the class gets cancelled.

For the second test case, $K= 2$, i.e, the professor wants at least $2$ students to be in class and there *are* $2$ who have arrived on time ($0$ and $-1$), hence the class does not get cancelled.