

Seats Wanted!

Author:

Time limit: 1 second

Memory limit: 256 megabytes

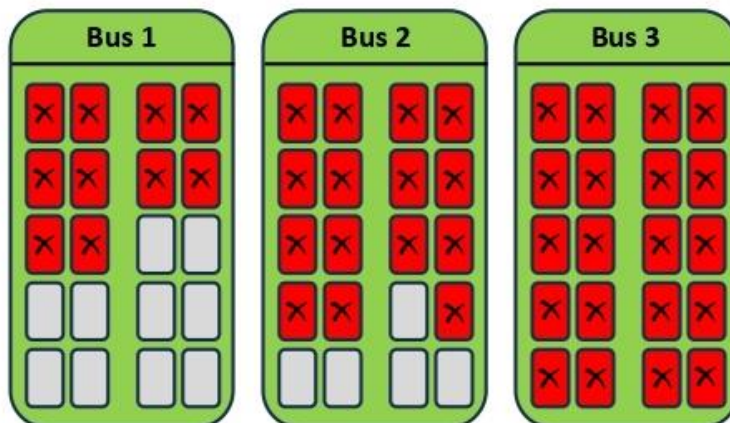
Jashim uncle is a kind individual at our university, IIUC, who oversees the transportation division. Whenever a student faces a problem with transportation, Jashim uncle genuinely shows concern and tries to help.

Today, Samia and her friends have planned to go to a restaurant to have lunch together after their classes using the university bus. Their group consists of n people, including Samia. To travel together, they need a bus with at least n seats.

IIUC has b buses in total, and each bus has exactly s seats. Checking each bus individually for available seats is time-consuming and tedious for Samia and her friends. Therefore, they asked Jashim uncle for help. Jashim uncle maintains a list of the information for all the buses. For i^{th} bus ($1 \leq i \leq b$), he knows the number of seats already taken, denoted as taken_seats_i ($0 \leq \text{taken_seats}_i \leq s$). He reviewed the list.

Write a program to determine if there is a bus with at least n seats available.

The visual representation of the third test case is given below:



Input

The input begins with an integer t ($1 \leq t \leq 1000$), representing the number of test cases. Each test case consists of two lines.

For each test case:

- The first line contains three space-separated integers: n ($1 \leq n \leq 50$) representing the total number of group members, b ($1 \leq b \leq 100$) representing the total number of buses, and s ($1 \leq s \leq 100$) representing the number of seats on every bus.
- The second line contains b space-separated integers denoting the number of seats already taken for each bus. The number of seats taken for the i^{th} bus is represented as $taken_seats_i$ ($0 \leq taken_seats_i \leq s$), where $1 \leq i \leq b$.

Output

After reviewing the list, if there is a bus with at least n seats available, print "Yes". Otherwise, print "No".

Examples

Input	Output
3	Yes
7 10 40	No
40 37 35 39 34 40 33 30 35 39	Yes
20 5 30	
15 20 30 25 20	
5 3 20	
10 15 20	