# Candy

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| --- | --- | --- |
| **Time Limit:** 2000MS |  | **Memory Limit:** 65536K |

## Description

There are N candies and M kids, the teacher will give this N candies to the M kids. The i-th kids for the j-th candy has a preference for like[i][j], if he like the sugar, like[i][j] = 1, otherwise like[i][j] = 0. If the i-th kids get the candy which he like he will get K glad value. If he or she do not like it. He will get only one glad value. We know that the i-th kids will feel happy if he the sum of glad values is equal or greater than B[i]. Can you tell me whether reasonable allocate this N candies, make every kid feel happy.

## Input

The Input consists of several cases .The first line contains a single integer t .the number of test cases.

For each case starts with a line containing three integers N, M, K (1<=N<=13, 1<=M<=13, 2<=K<=10)

The next line contains M numbers which is B[i](0<=B[i]<=1000). Separated by a single space.

Then there are M\*N like[i][j] , if the i-th kids like the j-th sugar like[i][j]=1 ,or like[i][j]=0

## Output

If there have a reasonable allocate make every kid feel happy, output "YES", or "NO".

## SAMPLE INPUT

2

3 2 2

2 2

0 0 0

0 0 1

3 2 2

2 2

0 0 0

0 0 0

## SAMPLE OUTPUT

Case #1: YES

Case #2: NO

## Hint

Give the first and second candy to the first kid.

Give the third candy to the second kid.

This allocate make all kids happy.