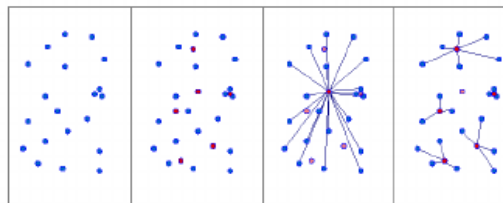


6868 Facility Locations

The HDWBP Inc. has n clients and needs to service these clients by opening k facilities. Each opened facility can serve any number of clients and each client must be served by an open facility. There are m potential locations for these k facilities. The cost of serving client j at potential location i is a non-negative integer c_{ij} . These costs satisfy a locality property: for two clients j and j' and two facilities i and i' , we have $c_{ij} \leq c_{i'j} + c_{i'j'} + c_{ij'}$. Given the costs, the CEO of HDWBP Inc. ultimately wants to know the cheapest way to open k facilities and assign clients to these open facilities. For now, he needs your help to determine if it is possible to do this task without any cost (i.e. with cost zero).



Picture from Wikimedia Commons

Input

The input file contains several test cases, each of them as described below.

The first line contains three integers m , n , k where $1 \leq m \leq 100$, $1 \leq n \leq 100$ and $1 \leq k \leq m$. Each of the next m lines contains n non-negative integers where the j -th integer in the i -th line is $c_{ij} \leq 10000$.

Output

For each test case, display 'yes' if it is possible to do the task with cost zero; otherwise, display 'no', on a line by itself.

Sample Input

```
3 2 2
0 2
1 1
2 0
3 3 2
0 2 2
1 1 1
2 2 0
```

Sample Output

```
yes
no
```