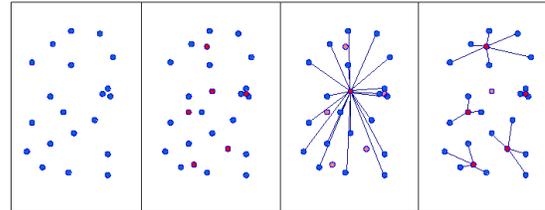


Problem D

Facility Locations

Problem ID: facility
Time Limit: 1 second

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 consists of a single test case. 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 $c_{ij} \leq 10\,000$.

Output

Display `yes` if it is possible to do the task with cost zero; otherwise, display `no`.

Sample Input	Sample Output
<pre>3 2 2 0 2 1 1 2 0</pre>	<pre>yes</pre>

Sample Input	Sample Output
<pre>3 3 2 0 2 2 1 1 1 2 2 0</pre>	<pre>no</pre>