

RACI

Input file: *standard input*
Output file: *standard output*
Time limit: 2 seconds
Memory limit: 512 mebibytes

Nikolai assigned students the task of creating a RACI matrix for a project during management lectures. This is a responsibility assignment matrix that lists all stakeholders of the project and their levels of involvement in different tasks. The levels are denoted by the letters “R”, “A”, “C”, and “I”. If there is no involvement, “-” is used. The levels of involvement have the following meaning:

- R (*Responsible*): performs the task (if they are absent, then *Accountable* performs the whole task)
- A (*Accountable*): accepts the task from *Responsible*; for each task, there must be exactly one instance of this level of involvement, unlike the other levels, of which there can be any number
- C (*Consulted*): provides consultation during the execution of the task
- I (*Informed*): receives information about the progress of the task

Help the students verify the correctness of the matrix.

Input

The first line contains two integers n and m : the number of rows and columns of the RACI matrix ($1 \leq n, m \leq 100$).

Next, n rows are listed, each containing m elements separated by spaces.

Each row represents a task, and each column corresponds to a stakeholder.

Each element of the matrix can be either an uppercase letter “R”, “A”, “C”, or “I”, or a minus sign, “-”, indicating that the given stakeholder has no level of involvement in this task.

Output

Print “Yes” if the matrix is correct, or “No” otherwise. Letter case does not matter.

Examples

<i>standard input</i>	<i>standard output</i>
3 5 C C A - I A R - C I A R I C -	Yes
3 3 A - C R C I - A I	No