Klimi recently started learning to play chess. Her favourite piece is the knight – she finds the way it moves really interesting. She wondered which cells can be reached by the knight.

More precisely, if she has an $N$ by $N$ board and some cells are already taken (meaning the knight can’t step on them) and the knight is located on coordinates $X\_{1},Y\_{1}$, she wants to find out whether it can reach cell $X\_{2},Y\_{2}$ in exactly $K$ moves. The target cell ($X\_{2},Y\_{2}$) will always be different from the starting cell ($X\_{1},Y\_{1}$) and both will always be free. $X$ is the number of the row (top to bottom) and $Y$ is the number of the column (left to right).

Help Klimi by writing a program which answers this question.

**Input**

From the first line of the file chess.in six numbers are inputted – $N$, $K$, $X\_{1}$, $Y\_{1}$, $X\_{2}$ and $Y\_{2}$. From each the following $N$ lines $N$ numbers describing a row of the board are inputted – the free cells are notated with 0 and the taken ones with 1.

**Output**

In the output file chess.out print a single word – *Yes*, if the knight can reach the target cell in exactly $K$ moves, and otherwise – *No*.

**Constraints**

$3\leq N \leq 1000$

$1\leq K \leq 10^{9}$

$1\leq X\_{1},X\_{2},Y\_{1},Y\_{2} \leq N$

**Time limit: 2 sec**

**Memory limit: 256 MB**

**Sample tests**

|  |  |  |  |
| --- | --- | --- | --- |
| **Input (chess.in)** | **Output (chess.out)** | **Input (chess.in)** | **Output (chess.out)** |
| 5 3 1 1 4 30 0 0 0 00 0 1 0 00 0 0 0 00 0 0 0 00 0 0 0 0 | Yes | 5 3 1 1 4 30 0 0 0 00 0 1 1 00 0 0 0 00 0 0 0 01 0 0 0 0 | No |