

Max's Anger Contest Series 1 P2 - Wesley's Anger Contest 7 P1 - Enraged

Time limit: 1.0s **Memory limit:** 256M

After attending the lectures for all his normal courses, Max has to attend his List I Communication credit lecture.

To get to his lecture, he has to traverse through a $2 \times N$ hallway made of either students represented with an S or empty spaces represented with a .

He starts walking at $(1, 1)$ (the top-left corner) and wants to get to his class at $(2, N)$ (the bottom-right corner).

Max can move from one cell to another if both cells are empty space and share a corner or edge (i.e., he can move in all 8 directions).

Since all the other students are walking to their List I Communication credit, they do not move, which enrages Max.

Because Max is enraged, he can remove at most 2 students from the hallway.

Can Max travel from $(1, 1)$ to $(2, N)$?

Constraints

$$1 \leq N \leq 2 \times 10^5$$

$(1, 1)$ and $(2, N)$ will always be empty space.

Input Specification

The first line will contain an integer, N , the number of columns in the hallway.

The next 2 lines will contain N characters that are each either an S or , the hallway filled with students or empty space, respectively.

Output Specification

Output YES if he can travel from $(1, 1)$ to $(2, N)$ by removing at most 2 students; otherwise, output NO.

Sample Input 1

```
6
.SS.SS
.SS.S.
```

Sample Output 1

NO

Explanation for Sample 1

Regardless of the 2 students removed, Max cannot travel from $(1, 1)$ to $(2, N)$.

Sample Input 2

5
.S.S.
.S.S.

Sample Output 2

YES

Explanation for Sample 2

If the students at $(1, 2)$ and $(1, 4)$ are removed, Max can travel from $(1, 1)$ to $(2, N)$.

Note that there are multiple valid solutions.