

TBC

Given a matrix (city map) of 't's (tunnel) and 'd's (dirt), count the number of connected tunnels in the city.

A connected tunnel is surrounded by dirt and is formed by connecting adjacent 't's horizontally, vertically or diagonally.

Input

- On the first line you will receive an integer – **r** – representing the number of rows in the map.
- On the second line you will receive an integer – **c** – representing the number of columns in the map.
- On the next **r** lines, you will receive values for each row in a single line.

Output

- Print the number of connected tunnels.

Constraints

- You may assume all four edges of the city map are all surrounded by dirt.
- **r** and **c** will be in the range [1, 1000].
- Map elements will be either **t** or **d**.

Examples

Input	Output
4 6 tdddt dtddt ddtdt ddtdt	2
4 6 tdttdt tdttdt tdttdt tdttdt	3