COCI '21 Contest 5 #2 Dijamant

Time limit: 1.0s **Memory limit:** 512M

Lovro has a table of n rows and m columns, where each cell is either `.` or `#`. By rotating a square by 45° a *diamond* shape is formed in the table. For a part of the table to be considered a diamond, its edge must also consist only of the character `#`, while its inside must be completely filled with `.` and it must be nonempty. Outside of a diamond, any character is allowed. Diamonds come in different sizes, and the three smallest examples of a diamond are shown in the first sample.

Fabijan asked Lovro to tell him how many diamonds are there in the table, or else Lovro has to give him a cookie. Help Lovro by writing a program which counts the number of diamonds in his table.

Input Specification

The first line contains positive integers n and m $(1 \leq n, m \leq 2\,000)$, the number of rows and columns.

Each of the next n lines contains m characters `.` or `#` which describe the table.

Output Specification

In the only line print the number of diamonds in the table.

Constraints

Subtask	Points	Constraints
1	20	$1 \leq n, m \leq 100$
2	50	No additional constraints.

Sample Input 1

```
7 25
.#...#....#....#.....#...
#.#..#...#.#...#....#.#..
.#...#..#...#..#...#...#.
.....#...#.#...#..#.....#
.....#....#....#...#...#.
.....#.........#....#.#..
.....#.........#.....#...
```

Sample Output 1

```
3
```

Sample Input 2

```
11 17
.....#........#..
....#.#........#.
...#...#....#...#
..#.....#....#.#.
.#....#..#....#..
#....#.#..#......
.#....#..#.......
..#.....#........
...#...#.........
....#.#..........
.....#...........
```

Sample Output 2

```
1
```

Explanation for Sample Output 2

There is only one diamond in the table (the one with the smallest possible size). There appears to be another diamond containing it, but it is not considered a diamond because its inside is not completely filled with `.`. The shape on the right side of the table is also not a diamond because it's missing a `#` character on its edge.

Sample Input 3

```
5 11
##.#.#.#.##
#.#.#.#.#.#
.#.#.#.#.#.
#.#.#.#.#.#
##.#.#.#.##
```

Sample Output 3

```
14
```