

How Many Plusses

Mirko is a strange boy so he has written down a square matrix full of ones and zeroes. Now he is interested in how many plusses there are in his matrix.

A plus is a square such that its side has an odd length greater than 1 and all of its cells are zero, except for the middle row and the middle column: they must be full of ones. For example, in the matrix below there are two plusses, one inside the other:

```
00100
00100
11111
00100
00100
```

Input

In the first line there is an integer $N \leq 2000$, dimension of the square matrix.

The next N lines are the rows of the matrix.

Output

Print the number of plusses appearing in the matrix.

Example

Input:

```
8
00010000
00010000
00010000
11111111
00010000
00010010
00010111
00010010
```

Output:

```
3
```