The season of flying kites is well ahead. So what? Let us make an inventory for kites. We are given a square shaped sheet of paper. But many parts of this are already porous. Your challenge here is to count the total number of ways to cut a kite of any size from this sheet. By the way, the kite itself can't be porous :-) AND . . . it must be either square shaped or diamond shaped.

```
                    x
    x              xxx              xxx              xxx
   xxx            xxxxx             xxx              x.x              x
    x              xxx              xxx              xxx
                    x
```

In the above figure first three are valid kites but not next two.

Input

Input contains an integer n ($n \le 500$), which is the size of the sheet. Then follows n lines each of which has n characters ('x' or '.'). Here the dotted parts resemble the porous parts of the sheet. Input is terminated by *end of file*.

Output

Output is very simple. Only print an *integer* according to the problem statement for each test case in a new line.

Sample Input

```
4
.xx.
xxxx
.xx.
.x..
3
xxx
xxx
xxx
```

Sample Output

```
4
6
```