

As any good pilgrim knows, hostels that one finds along the roads usually have huge rooms where rows and rows of beds wait to be occupied.

Although these beds have been used by a countless number of people before, tiredness makes everyone not to care to be lying on mattresses frayed by time in order to sleep a good handful of hours in a row and gather strength for the following day.

In fact, to maximize the possibilities of getting a good night's sleep, the most important thing is not the salubrity of the mattress, but the distance to the closest pilgrin. That's because a night with an unknown person snoring in a bed next to you can ruin your night way more than a bunch of mites.

When you go inside one of these rooms, the objective is, then, to find a bed that maximizes the distance with the closest pilgrim (to both sides).



Input

Input is composed by several test cases that represent the occupation of a row of beds one night of the journey.

Each of the rows appears in a single line that contains a sequence of '.' and 'X' (up to 500,000 characters). The dots represent empty beds, while the 'X' represent occupied beds. It is guaranteed that there is always at least one empty and one occupied bed.

Output

For each test case, write a line with the maximum possible number of empty beds that you can have between the selected bed and the closest neighbour.

Sample Input

```
.X.X.  
.X...X.  
.X...X.  
...X
```

Sample Output

```
0  
1  
1  
2
```