

Links and pearls



SEASON 10 - SIXTH ROUND

A necklace can be described as a string of links ('-') and pearls ('o'), with the last link or pearl connected to the first one. You can remove an element (a link or a pearl) and insert it between two other existing elements on the necklace (including between the last and the first one). This process can be repeated as many times as you like, but you can't throw away any parts. Can you make the number of links between every two adjacent pearls equal? Two pearls are considered to be adjacent if there is no other pearl between them. Note that the final necklace should remain as one circular part of the same length as the initial necklace.

Input (linksandpearls.in)

The first line of the input file contains an integer **N** - the number of necklaces. Each of the next **N** lines contains a string **s**, representing a necklace, where a dash '-' represents a link and the lowercase English letter 'o' represents a pearl.

Output (linksandpearls.out)

For each necklace, print "YES" if the links and pearls can be rejoined such that the number of links between adjacent pearls is equal. Otherwise print "NO".

Constraints

$$1 \leq N \leq 10$$

$$3 \leq \text{The length of each necklace} \leq 100$$

Example

Input

```
4
-o-o--
-o---
-o---o-
ooo
```

Output

```
YES
YES
NO
YES
```