I, Robot

by Kai Hormann

It is your birthday and you received a robot as a present. The robot has wheels and can move around, but it is very limited and can only understand 3 commands: `m` for moving 1cm ahead, `l` for turning 45^o to the left and `r` for turning 45^o to the right. Your friend Bob is envious and would like to take the robot from you. He asks you to let the robot execute a program that he has written, and his evil plan is to move it over to him, so that he can take it. Since you know Bob very well, you carefully check the program that he gives you before letting the robot execute it, to make sure that the robot will be back to you at the end.

Input

The first line of the input contains an integer, $1 \leq N \leq 10$, the number of programs to analyze. The following N lines each contain a string with $1 \leq M \leq 10^6$ characters, where each character is either `m`, `l`, or `r`, representing a program to be analyzed.

Output

For each of the N programs, print out "yes" if the robot is back to its starting point at the end of the program, or "no" otherwise.

Examples

Sample input 1

```
3
mllmllmllm
mmrmllmlllmmrmllm
rrmlllm
```

Sample output 1

```
yes
yes
no
```

Limits

Time limit is 1 seconds.

Memory limit is 256 megabytes.