Problem 3. Phoenix Grid

The Phoenix Grid is an ancient artifact created by the Linguistics miracle – Mozilla, The "Fire Bird". It is used to translate Phoenix language. You are the newest scientist, researching the Grid and as the research team was almost out of hope, you came up with the genius idea to use Regular Expressions! You saved the day! You are a Hero!

You will begin **receiving encoded messages**. You must **CHECK** each **one** of **them** and if it's a **VALID**.

A **valid encoded message** consists of **one phrase** or **more phrases**, separated by **DOTS** ('**.**').

- A **phrase** consists of exactly **3 characters**.
- A **phrase CANNOT** contain **whitespace** characters or the '**_**' (**underscore**) character.

Valid messages: "**asd.dsa**", "**123.312**", "**3@a.231**", "**111**", "**@sd**", "**132.31$.ddd**" . . .

Invalid messages: "**123asdasd.dsa**", "**_@a. sd**", "**a.s.d**" . . .

When you have found a valid message, you must **check** if it a **PALINDROME** – if it reads the same backward as forward.

Palindrome messages: "**asd.dsa**", "**123.321**", "**cat.php.tac**" . . .

If the **message** is **VALID** and is a **PALINDROME** print "**YES**". In any other case, print "**NO**".

The input ends when you receive the command "**ReadMe**".

Input

- As input you will receive several input lines containing encoded messages.

Output

- As output you must print **for each message** "**YES**" or "**NO**" if its **valid** or **not**.

Constrains

- The input lines may contain **any ASCII character**.
- There will be no more than **1000 input lines**.
- Allowed working time / memory: **100ms / 16MB**.

Examples

Input	Output
asd asd.asd asd.dsa 123.323.321 _ds._sad.sds jss.csh.php.hsc.ssj ReadMe	NO NO YES YES NO YES
asa igi.igi ___.___ . sds.dsd.sds.dsd.sds.dsd.sds xha.ahx ReadMe	YES YES NO NO YES YES