# 02. Problem

Create a program that **checks if inputs are a valid password and encrypt it**. **On the first line**, you will receive a **number** that indicates how many inputs you will receive on the next lines.

A password is **valid** when:

* It **starts** with a group of **symbols** and **ends** with the **same symbols (the same length)**
* There is a **greater than sign (>)** after the first group and a **less than sign (<)** before the last one
* In between the greater than sign and the less than sign there are **four groups** (each of **three** characters), separated by pipe (**|**)
* The first group consists only of **numbers**
* The second group – only of **lowercase letters**
* The third one – only of **uppercase letters**
* The fourth one – all **symbols except < and >**

**Example of a valid password:**

**"$$$>312|dfe|KFE|@!#<$$$"**

You must **check if the password is valid** and if it **is** – **encrypt it**, if it **isn't** – **print** the following message:

**Try another password!**

**Encrypting a password** means **taking all numbers, letters and symbols from the middle four groups** and **concatenate** them. After successful encrypt, print it the following format:

**Password: {encrypted password}**

### Input

* On the **first line** – **n** – the count of inputs.
* On the **next n lines** – **input** that you have to **check** if it has a **valid password**.

### Output

* Print all results **from each input**, each on a **new line**.

### Examples

|  |  |  |
| --- | --- | --- |
| **Input** | **Output** | **Comments** |
| [  '3',  '##>00|no|NO|!!!?<###',  '##>123|yes|YES|!!!<##',  '$$<111|noo|NOPE|<<>$$'  ] | Try another password!  Password: 123yesYES!!!  Try another password! | The **first** one doesn't start and end with the same amount of '#' and the count of characters in each group is different than 3.  The **second** one is correct.  The **third** one uses the wrong '<' and '>' and the group containing '<<' can contain everything except '<' and '>'. |
| [  '5',  'aa>111|mqu|BAU|mqu<aa',  '()>111!aaa!AAA!^&\*<()',  'o>088|abc|AAA|\*\*\*<o',  'asd>asd|asd|ASD|asd<asd',  '\*>088|zzzz|ZzZ|123<\*'  ] | Password: 111mquBAUmqu  Try another password!  Password: 088abcAAA\*\*\*  Try another password!  Try another password! |  |