Problem: Way Too Long Words

Time Limit: 1 second
Memory Limit: 256 MB

Problem Statement

Sometimes, writing long words can be tiresome. To make things easier, Polycarp decided to abbreviate long words. The abbreviation of a word is made by replacing the middle letters with the count of those letters. Specifically, if a word has more than 10 characters, it is abbreviated as follows:

- The first letter of the word.
- The number of letters between the first and last letter.
- The last letter of the word.

For example, the word `"localization"` becomes `"l10n"`, and the word `"internationalization"` becomes `"i18n"`.

Given a list of words, your task is to write a program that replaces each word longer than 10 characters with its abbreviation. If a word has 10 or fewer characters, it should remain unchanged.

Input

- The first line contains an integer **n** ($1 \le n \le 100$) — the number of words.
- Each of the next **n** lines contains a single word consisting of lowercase and uppercase English letters. The length of each word is between 1 and 100 characters, inclusive.

Output

- Print **n** lines. The **i-th** line should contain the abbreviation of the **i-th** word if its length is greater than 10. Otherwise, print the word unchanged.

Subtasks

- **Subtask 1 (30 points):**
  - $1 \le n \le 10$
  - Each word has at most 100 characters.
- **Subtask 2 (70 points):**
  - Original constraints.

Examples

Example 1

arduino
Copy code

```
Input:
4
word
localization
internationalization
pneumonoultramicroscopicsilicovolcanoconiosis

Output:
word
l10n
i18n
p43s
```

Explanation:

- `"word"` has 4 characters, so it remains unchanged.
- `"localization"` has 12 characters. Its abbreviation is `"l10n"` (`12 - 2 = 10` middle characters).
- `"internationalization"` has 20 characters. Its abbreviation is `"i18n"` (`20 - 2 = 18` middle characters).
- `"pneumonoultramicroscopicsilicovolcanoconiosis"` has 45 characters. Its abbreviation is `"p43s"` (`45 - 2 = 43` middle characters).