
Way Too Long Words

Input file: `standard input`
Output file: `standard output`
Time limit: 1 second
Memory limit: 256 megabytes

Given a string S . Print the **origin string** if it's **not too long** otherwise, print the **special abbreviation**.

Note: The string is called **too long**, if its length is strictly more than **10** characters. If the string is **too long** then you have to print the string in the following manner:

- Print the **first** character in the string.
- Print number of characters between the first and the last characters.
- Print the **last** character in the string.

For example: “localization” will be “l10n”, and “internationalization” will be “i18n”.

Input

The first line contains a number T ($1 \leq T \leq 100$) number of test cases.

Each of the T following lines contains a string S ($1 \leq |S| \leq 100$) where $|S|$ is the length of the string.

It's guaranteed that S contains only lowercase Latin letters.

Output

For each test case, print the result string.

Example

standard input	standard output
4	word
word	l10n
localization	i18n
internationalization	p43s
pneumonoultramicroscopicsilicovolcanoconiosis	