

Cout

In C++ programming language cout statement is used to print the standard output. For example the statement:

```
cout<<"string";
```

will print *string* on the screen.

Some of the characters can not be written directly since that will make the statement ambiguous. To resolve this we use '\ ' before such characters. For example to print " on screen we will write-

```
cout<<"\"";
```

In this problem we will only deal with following 4 such special characters.

- <newline> (\n)
- single quote (')
- double quote (")
- backslash (\)

You are given a valid cout statement and you have to find the output of the same.

Input

First line contains T the number of test cases. Each of the following T lines contains a VALID cout statement length of which doesn't exceed 1000.

Output

For each test case print the output from the new line.

Example

Input:

```
3
cout<<"code";
cout<<"NSIT\nIIITA";
cout<<"\\V\\V\\V";
```

Output:

```
code
NSIT
IIITA
VVV
```