

Problem U. Lexicographical ordering

Time limit	1000 ms
Mem limit	1572864 kB
Code length Limit	50000 B
OS	Linux

In this problem you have to compare two strings lexicographically for a given ordering of the English alphabet. For example, the usual ordering is "abcdefghijklmnopqrstuvwxyz" but in this problem ordering can be any permutation of these 26 characters.

Input

First line contains T the number of test cases. then T test case follow. Each test case is described in 3 lines. First describes the ordering (in exactly 26 characters) next two lines contains two strings A and B of equal length.

Output

For each test case print ">" if $A > B$ or "<" if $A < B$ else print "="

Example

Input	Output
1 abcdefghijklmnopqrstuvwxyz nsit nits	>