

H. Strings with Same Letters

A professor assigned a program to his class for which the output is a string of lower-case letters. Unfortunately, he did not specify an ordering of the characters in the string, so he is having difficulty grading student submissions. Because of that, he has requested that ICPC teams help by writing a program that inputs pairs of strings of lower-case letters and determines whether or not the strings have the same letters, though possibly in different orders. Note that repeated letters are important; the string “abc” and “aabbccccc” are not viewed as having the same letters since the second one has more copies of each letter.

Input:

Input to be processed will be pairs of lines containing nonempty strings of lower-case letters. All input will be valid until the end of file indicator. End of file will be signaled by two lines that contain just the word “END” in upper case. No input line will be longer than 1,000 characters.

Output:

Report whether pairs of strings have the same letters or not. Follow the format exactly: “Case”, a space, the case number, a colon and one space, and the result given as “same” or “different” (lower-case, no punctuation). Do not print any trailing spaces.

Sample Input	Sample Output
testing	Case 1: same
intestg	Case 2: different
abc	Case 3: same
aabbccccc	Case 4: different
abcabcbcc	
aabbccccc	
abc	
xyz	
END	
END	