

Pangram

A pangram is a phrase that includes at least one occurrence of each of the 26 letters, from 'a' to 'z' (case insensitive). Given a string, you need to check whether it's a pangram or not.

Format Input

The input will consist of several lines in **testdata.in** file. The input begins with an integer T indicating the number of test cases. In each test case, there is a string you need to check.

Format Output

For each test case, output "pangram" if it is a pangram. Otherwise, output the word "missing" followed by a space and then the list of letters that didn't occur in the phrase. The list of missing letters should be reported in lower case and should be sorted alphabetically.

Constraints

1 <= T <= 10 1 <= |s| <= 1000

Sample Input (testdata.in)	Sample Output (standard output)
3 The quickbrownfoxjumpsoverthelazydog. ADk, sldfkj Ekfjdsl !@#\$ 949 akdsfj FKDK	Case #1: pangram Case #2: missing bcghimnopqrtuvwxyz Case #3: missing bceghilmnopqrtuvwxyz