

# ACM Qualifier 2015: Quick Brown Fox

A pangram is a phrase that includes at least one occurrence of each of the 26 letters, 'a'...'z'. You're probably familiar with this one: "The quick brown fox jumps over the lazy dog."

Your job is to recognize pangrams. For phrases that don't contain every letter, report what letters are missing. We'll say that a particular letter occurs in the phrase if it occurs as either upper case or lower case.

## Input Format

Input starts with a line containing an integer  $N$ . The next  $N$  lines are each a single phrase, possibly containing upper and lower case letters, spaces, decimal digits and punctuation characters ':', ',', '?', '!', '"', and "'".

## Constraints

$$1 \leq N \leq 50$$

Each phrase contains at least one and no more than 100 characters.

## Output Format

For each input phrase, output "pangram" if it qualifies as 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.

## Sample Input 0

```
3
The quick brown fox jumps over the lazy dog.
ZYXW, vu TSR Ponm lkj ihgfd CBA.
.,?!'" 92384 abcde FGHIJ
```

## Sample Output 0

```
pangram
missing eq
missing klmnopqrstuvwxyz
```