

# UCF Local Contest (Final Round) — September 10, 2022

## Letter Frequency

*filename:* freq

*Difficulty Level:* Easy-Medium

*Time Limit:* 5 seconds

The most common consonants in English are R, T, N, S, and L. The most common vowels are E, A, and I. It is definitely fun to find the most common letters.

### The Problem:

Given a set of words, find the letter that occurs the most in each position. That is, the most frequent letter at Position 1 when considering all the words, the most frequent letter at Position 2 when considering all the words, etc. If more than one letter is the most frequent for a particular position (i.e., ties for max at that position), print those letters in alphabetical order.

### The Input:

The first input line contains an integer,  $n$  ( $1 \leq n \leq 20$ ), indicating the number of words. Each of the next  $n$  input lines contains a word. Assume that each word contains 1-30 lowercase letters and it starts in column one.

### The Output:

Print each position and the letter(s) that occur the most in that position, following the format illustrated in Sample Output. Note that each output line starts with a number, immediately followed by a colon (':'), followed by a space, followed by a letter. If there are multiple letters for an output line, they are separated by exactly one space.

**Sample Input****Sample Output**

5 this is an example ink	1: i 2: n 3: a i k 4: m s 5: p 6: l 7: e
3 this is longlonglong	1: i l t 2: h o s 3: i n 4: g s 5: l 6: o 7: n 8: g 9: l 10: o 11: n 12: g