

ACSL Letters

PROBLEM: Given a sentence, compute various facts about the letters that comprise the sentence and the words in the sentence.

INPUT: There will be two input lines. Each line contains an English sentence with letters (uppercase and lowercase), spaces, and punctuations of various sorts. Ignore all characters but the letters, and consider uppercase and lowercase letters to be the same. A “word” is a set of letters following a non-letter and terminated by a non-letter. For example, in the first sample input line, there are 10 words: The, All, Star, Contest, Will, ..., Florida.

OUTPUT: For each input sentence, print the results following using only uppercase letters:

1. The letter that appears most often and how many times it appeared. We guarantee that there will be one such letter.
2. The letter that appears in the most words and how many words it appeared in. We guarantee that there will be one such letter.
3. The letters that appear in any word; print the list as a single string in reverse alphabetical order.
4. The letters that appear more than once in a word; print the list as a single string in alphabetical order.
5. The letters that appear more than once in the sentence; print the list in decreasing order of times that the letter appears. If multiple letters appear the same number of times, print those letters in alphabetical order.

SAMPLE INPUT:

1. The All-Star Contest will be held in Orlando, Florida.
2. After we win, we are going to Disney World.

SAMPLE OUTPUT:

1. L 7 (*the L and 7 can appear in either order, but both must be present to receive credit*)
2. L 5 (*the L and 5 can appear in either order, but both must be present to receive credit*)
3. WTSRONLIHFEDCBA
4. LOT
5. LAEOTDINRHS
6. E 5 (*the E and 5 can appear in either order, but both must be present to receive credit*)
7. E 5 (*the E and 5 can appear in either order, but both must be present to receive credit*)
8. YWTSRONLIGFEDA
9. G
10. EWINORADGT

TEST INPUT:

1. The Wizarding World of Harry Potter at Universal Studios.
2. Oh what a tangled web we weave when we first practice to deceive.

TEST OUTPUT:

1. R 6 (*the R and 6 can appear in either order, but both must be present*)
2. R 5 (*the R and 5 can appear in either order, but both must be present*)
3. ZYWVUTSRPONLIHGFEDA
4. IRST
5. RTAIODESHLNUW
6. E 11 (*the E and 11 can appear in either order, but both must be present*)
7. E 8 (*the E and 8 can appear in either order, but both must be present*)
8. WVTSRPONLIHGFEDCBA
9. CE
10. EWATCHIDNORV