

Comparing Sentences

Filename: sentences

The Problem

Jill and MC have been comparing a lot of sentences lately. They especially like to look for similarities and differences between the two sentences. Lately they have taken to figuring out which words are in both sentences and which words are unique to one sentence or the other. Jill and MC have decided that it is taking them way too long to analyze their sentences, and want some of their BHCSI students to write a program to find the words for them. They need you to take the two sentences and then tell them which words are unique and which are common between the two sentences.

The Input

The input format will be a single integer n on the first line indicating the number of pairs of strings to compare. The following $2n$ lines will include pairs of sentences to be analyzed. Each sentence will be comprised of strings separated by single spaces. Each of the strings in each sentence will only contain in between 1 and 19 lowercase letters, inclusive. Each sentence will contain in between 1 and 10 words, inclusive.

The Output

The output for typical cases where the two sentences have more than zero unique words and more than zero common words will be two lines. The first line of output in these cases should indicate the words that the two sentences have in common and second line of output should indicate the words that are unique to each sentence. For these two lines, output each word in sorted order, with a single space between words on a line.

If the sentences contain exactly the same set of words (no unique words), only output:

Come on Jill and MC, these sentences use the exact same words!

If the two sentences have no words in common, only output:

You won't like these sentences! They have nothing in common!

Separate the output for each test case with a blank line.

Sample Input

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fred and george take long trips to the local mall
the local supermarket sells lots of potato chips to fred
java is preferred by professional programmers all around the world
professional programmers all around the world prefer writing in python
the quick brown fox jumps over the lazy dog
the quick brown fox jumps over the lazy dog
i like cupcakes
you prefer ice cream
```

Sample Output

fred local the to
and chips george long lots mall of potato sells supermarket take trips

all around professional programmers the world
by in is java prefer preferred python writing

Come on Jill and MC, these sentences use the exact same words!

You won't like these sentences! They have nothing in common!