

Problem 10: Common Letters

20 minutes, 200 points

Filename: prob10 (e.g. *prob10.c*, *prob10.cpp*, *prob10.java*, *prob10.py2*, *prob10.py3*)

Description

Write a program that can determine the set of letters shared in common among three words.

Common letters (TEST MEANT TIME = TE)

The first line of input will include a single integer that indicates how many additional lines of input need to be read. Each additional line of input will contain three words separated by one or more spaces.

Each line of output should contain the common letter(s) for the three words. If there are multiple common letters for the three words, return each letter on the same line. The common letters should appear in the same order as they appear in the first word. Each common letter should only appear once per line of output. If the words in a line of input do not have any common letters, output a blank line.

Sample Input

```
3
ENGINEER  DESIGNER  RESEARCHING
OPEN      SOURCE    SOFTWARE
ENCODE    DOCKER    LOCKED
```

Sample Output

```
ENGIR
OE
ECOD
```

Hints

Words may be separated by one or more **Space** and/or **Tab** characters. When reading the three words from each line, split the string by one or more whitespaces. Python “split()” and C++ “cin” handle this automatically, but Java “split()” requires a special whitespace regular expression. See examples below.

Python

```
word1, word2, word3 = lines[case].split()
```

C++

```
cin >> word1 >> word2 >> word3
```

Java

```
String[] words = input.nextLine().split("\\s+");
```

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