

# PKU Campus 2019

## Contest Problem Set

Peking University

May 12th, 2019

This problem set contains 2 problems; pages are numbered from 1 to 5.

**Attention:**

1. The input must be read from standard input.
2. The output must be written to standard output.
3. If you use long long in your gcc/g++ program, make sure you use “%lld” instead of “%I64d” while reading or writing long long value.
4. Due to possible changes during the contest, please refresh the web frequently.

## Problem List

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# A. Wu Xing

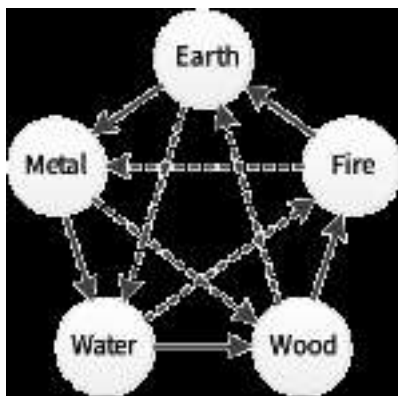
Time Limit: 1000 ms

Memory Limit: 65536 kB

## Description

The Wu Xing, or the Five Elements, is very much a part of Chinese traditional culture. It plays an important part in ancient Chinese geomancy, astrology, medicine, music, military strategy, martial arts, etc.

The Wu Xing is comprised of five elements: earth, fire, metal, water and wood. There is either a generating or an overcoming interaction between each pair of different elements. These two kinds of interactions are illustrated by the picture below:



A solid arrow from A to B means "A generates B", and a dotted arrow from A to B means "A overcomes B".

Now give you some pairs of different elements, please figure out the interaction between each pair.

## Input Format

The first line contains an integer  $N$ , indicates the number of pairs of different elements.

Then  $N$  lines follow. Each line contains a pair of strings  $S_1$  and  $S_2$ , separated by a single space. Both  $S_1$  and  $S_2$  are one of the following five strings: "earth", "fire", "metal", "water", or "wood".  $S_1$  and  $S_2$  are different and indicate a pair of elements.

## Output Format

For each pair of different elements  $S_1$  and  $S_2$ , output a sentence in a single line in one of the four formats below, according to the interaction between them:  $S_1$  generates  $S_2$ .  $S_2$  generates  $S_1$ .  $S_1$  overcomes  $S_2$ .  $S_2$  overcomes  $S_1$ .

Note that for each sentence, there is a period (".") at the end and the first letter should be capitalized.

### **Sample Input**

2  
earth water  
earth fire

### **Sample Output**

Earth overcomes water.  
Fire generates earth.

## B. Template

Time Limit: 1000 ms

Memory Limit: 65536 kB

**Description**

**Input Format**

**Output Format**

**Sample Input**

**Sample Output**