

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

ID	Title	Page
A	Wu Xing	3
B	Template	5

A. Wu Xing

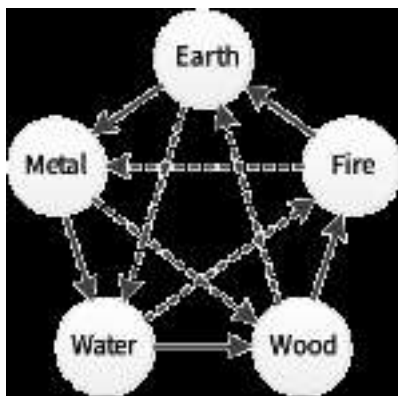
Time Limit: 1000 ms

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