CCC '21 J3 - Secret Instructions

Time limit: 3.0s **Memory limit:** 1G

Canadian Computing Competition: 2021 Stage 1, Junior #3

Professor Santos has decided to hide a secret formula for a new type of biofuel. She has, however, left a sequence of coded instructions for her assistant.

Each instruction is a sequence of five digits which represents a direction to turn and the number of steps to take.

The first two digits represent the direction to turn:

- If their sum is odd, then the direction to turn is left.
- If their sum is even and not zero, then the direction to turn is right.
- If their sum is zero, then the direction to turn is the same as the previous instruction.

The remaining three digits represent the number of steps to take which will always be at least 100.

Your job is to decode the instructions so the assistant can use them to find the secret formula.

Input Specification

There will be at least two lines of input. Each line except the last line will contain exactly five digits representing an instruction. The first line will not begin with `00`. The last line will contain `99999` and no other line will contain `99999`.

Output Specification

There must be one line of output for each line of input except the last line of input. These output lines correspond to the input lines (in order). Each output line gives the decoding of the corresponding instruction: either `right` or `left`, followed by a single space, followed by the number of steps to be taken in that direction.

Sample Input

```
57234
00907
34100
99999
```

Output for Sample Input

```
right 234
right 907
left 100
```

Explanation of Output for Sample Input

The first instruction is `57234` which is decoded as `right 234` because $5 + 7 = 12$ which is even and `57` is followed by `234`.

The second instruction is `00907` which is decoded with the same direction as the previous instruction (`right`) but with `907` steps.

The third instruction is `34100` which is decoded as `left 100` because $3 + 4 = 7$ which is odd and `34` is followed by `100`.

The last line contains `99999` which tells us these are the only three instructions.