

4689 Graffiti

While on a walk our robotic friend Dezider finds a rather peculiar drawing. The drawing consists of numbers in a 3×3 grid. Each cell in the grid appears to contain a single digit:

4	7	8
5	1	4
8	2	5

Upon closer examination Dezider discovers that some of the cells originally contained 2-digit numbers. Apparently someone has painted over some of the digits in the drawing, preserving just one of the original digits in each cell. A passerby mentions to Dezider that originally the sum of the numbers in each row and each column was exactly 100 and that there had not been leading zeros.

Dezider would like to restore the drawing to its original form but cannot determine the values of the missing digits. He has asked you to write a program to determine them.

Input

The input file contains several test cases, each of them as described below.

The input contains three lines, each line specifies one row of the grid. Each line contains three single digits, separated by white space.

Consecutive test cases are separated by a single blank line.

Output

For each test case, write to the output:

- If it is possible to find the missing digits, the output consists of the three lines of a restored grid (which need not be unique). Each line contains three one- or two-digit numbers, separated by single spaces.

- If no solution exists, the program should output one line with the text 'No solution'.

The outputs of two consecutive cases will be separated by a blank line.

Sample Input

```
4 7 8
5 1 4
8 2 5
```

```
1 5 7
2 4 5
1 7 0
```

Sample Output

```
14 78 8
58 1 41
28 21 51
```

No solution.