Write a program that will solve a n by n system of simultaneous equations where the coefficients of the equations are complex numbers. (Recall that a complex number is an imaginary number of the form $a + b * \sqrt{-1}$, where a and b are real numbers.)

Input

Input contains several datasets, each separated by an empty line. Each dataset consists of $0 < n \leq 99$ lines each containing $n + 1$ complex numbers in the form (a, b). The j-th, $1 \leq j \leq n$, complex number at line i is the coefficient of the j-th unknown in the i-th equation and the last complex number at line i represents the right-hand side of the i-th equation.

Output

for each dataset, the output consists of n lines containing pairs of the form (a, b). The pair on line i of output represents the i-th root of the input system of equations. **Each pair is to be printed in parenthesis with numbers accurately rounded to one digit to the right of the decimal point, as the sample below.**

In case the input system of equations can not be uniquely solved, your program should produce the sentence '`No solution`' as output.

Print a blank line between datasets.

Sample Input

```
(1,0) (2,0) (3,0) (14,0)
(2,0) (3,0) (4,0) (20,0)
(3,0) (4,0) (5,0) (26,0)

(1,0) (2,0) (3,0) (4,0)
(2,0) (4,0) (6,0) (8,0)
(3,0) (4,0) (5,0) (26,0)
```

Sample Output

```
(1.0,0.0)
(2.0,0.0)
(3.0,0.0)

No solution
```