# 32 **Ciphers and letters**
*31 points*

## Introduction

Charly is making some puzzles for a newspaper. In this puzzle, some letters are replaced by digits, and the objective is to figure out the value of each letter. The puzzle consists of a sum of two numbers.

For example:

```
 DAME

   +

 MAS
_____

AMOR
```

Each letter can only be replaced by a different digit (from 0 to 9). In this example the value of the letters in the solution is:

D = 8

A = 9

M = 5

E = 6

S = 1

O = 4

R = 7

as DAME + MAS = 8956 + 591 = 9547, which is AMOR.

Note: For this example, there's more than one solution, for example 8951 + 592 = 9543

In the tests used to check your code there will be only one possible solution.

Before sending the puzzles to the newspaper Charly needs to check if they are correct. Could you help him?

## Exercise

We ask you to write a program that receives three words (first addend, second addend and result):

 DAME

 MAS

 AMOR

 and returns a line like with

- if there is a solution, the numeric values of the sum and the result all in a row:

 8956+591=9547

 - if there is no solution, the program will return the text

 NO SOLUTION

 Constraints for the words:

- Words must be only letters and must be capital letters.

- Words cannot be longer than 10 letters.

- Only letters from english alphabet (no Ñ or Ç, for example).

## Input

The input will be three lines, each one with one word

`<first addend>`
`<second added>`
`<result>`

## Output

If there is a solution:

A line representing the sum, using only numbers and the symbols '+' and '='

> *first added as number+second added as number=result as number*

If there is no solution:

> *NO SOLUTION*

## Example 1

**Input**

```
LET
LEE
ALL
```

**Output**

```
156+155=311
```

## Example 2

**Input**

```
GIVEN
ME
MORE
```

**Output**

```
NO SOLUTION
```