Fermat's last theorem (1) P36430_en

A famous theorem of the mathematician Pierre de Fermat, proved after more than 300 years, states that, for any natural number $n \geq 3$, there is no natural solution (except for $x = 0$ or $y = 0$) to the equation

$$x^n + y^n = z^n.$$

For $n = 2$, by contrast, there are infinite non-trivial solutions. For instance, $3^2 + 4^2 = 5^2$, $5^2 + 12^2 = 13^2$, $6^2 + 8^2 = 10^2$, $\ldots$.

Write a program that, given four natural numbers a, b, c, d with $a \leq b$ and $c \leq d$, prints a natural solution to the equation

$$x^2 + y^2 = z^2$$

such that $a \leq x \leq b$ and $c \leq y \leq d$.

Input

Input consists of four natural numbers a, b, c, d such that $a \leq b$ and $c \leq d$.

Output

Print a line following the format of the examples, with a natural solution to the equation

$$x^2 + y^2 = z^2$$

that fulfills $a \leq x \leq b$ and $c \leq y \leq d$. If there is more than one solution, print the one with the smallest x. If there is a tie in x, print the solution with the smallest y. If there are no solutions, print "`No solution!`".

Sample input 1

```
2 5 4 13
```

Sample output 1

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3^2 + 4^2 = 5^2
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Sample input 2

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1 1 1 1
```

Sample output 2

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No solution!
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Problem information

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