# **Problem 2 – Pythagorean Numbers**

George likes math. Recently he discovered an interesting property of the <u>Pythagorean Theorem</u>: there are infinite number of triples of integers a, b and c ( $a \le b$ ), such that  $a^2 + b^2 = c^2$ . Write a program to help George find all such triples (called Pythagorean numbers) among a set of integer numbers.

#### Input

The input data should be read from the console. At the first line, we have a number  $\mathbf{n}$  – the count of the input numbers. At the next  $\mathbf{n}$  lines we have  $\mathbf{n}$  different integers.

The input data will always be valid and in the format described. There is no need to check it explicitly.

## **Output**

Print at the console all Pythagorean equations  $\mathbf{a^2 + b^2} = \mathbf{c^2}$  (a  $\leq$  b), which can be formed by the input numbers. Each equation should be printed in the following format: " $\mathbf{a^*a + b^*b} = \mathbf{c^*c}$ ". The order of the equations is not important. Beware of **spaces**: put spaces around the "+" and "=". In case of no Pythagorean numbers found, print "**No**".

#### **Constraints**

- All input numbers will be **unique** integers in the range [0...999].
- The **count** of the input numbers will be in the range [1..100].
- Time limit: 0.3 sec. Memory limit: 16 MB.

## **Examples**

Input	Output		
8	5*5 + 12*12 = 13*13		
41	9*9 + 40*40 = 41*41		
5	3*3 + 4*4 = 5*5		
9			
12			
4			
13			
40			
3			

Input Output	
5 3*3 + 4*4 = 5*5 3 0*0 + 3*3 = 3*3 12 0*0 + 12*12 = 12*12 5 0*0 + 5*5 = 5*5 0 0*0 + 0*0 = 0*0 4 0*0 + 4*4 = 4*4	2

Input	Output
3	No
10	
20	
30	





















