

Poltu and Math

Poltu is a brilliant student. He got GPA-5 in PSC examination last year. He is now in class six. In today's Math class, teacher wrote an algebraic formula on the board and explained how the formula proves both side of the equation. The formula is:

$$(a + b)^2 = a^2 + 2ab + b^2$$

They got homework too. They are given the value of a and b , they have to calculate the value of $(a + b)^2$. As Poltu is a naughty kid, he didn't pay attention in his class. Moreover it seems to him that the teacher is also dangerous. So at any cost he has to do his homework. Now as he knows that he has only one programmer friend and that's you. So you have to help him anyway.

Input

Input starts with an integer T ($1 \leq T \leq 10$), denoting the number of test cases.

Each case contains two space separated integers a and b ($0 \leq a, b \leq 10^5$).

Output

For each case, print the case number and the result of the formula.

Sample Input	Sample Output
2	Case 1: 49
5 2	Case 2: 121
4 7	