Problem A - Input Output

Given two integers a and b, output a+b, a-b, and $a \cdot b$.

Input

The first line contains an integer T, denoting the number of test cases. The next T lines each contain two integers a and b ($-10^9 \le a, b \le 10^9$).

Output

For each test case, output a + b, a - b, and $a \cdot b$ on a single line, separated by spaces.

Sample Input

3

1 2

-1 1

1 -1

Sample Output

3 -1 2

0 -2 -1

0 2 -1