Problem D

A Day in Math-land

Input: Standard Input
Output: Standard Output

X and **Y** are two integer numbers and **X>=Y**. The values of **X** and **Y** fits in **16**-bit signed integer. When the summation of these two numbers is multiplied with **Y** we get **P** and when the absolute value of the subtraction of these two numbers is multiplied with **X** we get **Q**. Given the value of **P** and **Q** you must find the value of **X** and **Y**.

Input

The first line of the input file contains an integer **N (N<=75000)** that denotes how many lines of inputs are there. Each of the next **N** lines contains two integers which denotes the values **P** and **Q** respectively, here |**P**|**<2^31, |Q|<2^31.**

Output

For each line of input except the first one produce two or more line of output. The first line contains the serial of output and the next lines contains the possible values of **X** and **Y** (One pair of values in each line). When the given values of **P** and **Q** is impossible for any integer value of **X** and **Y** print the line **"Impossible."** instead. If there is more than one solution print the pair with smaller **X** value.

Sample Input	Output for Sample Input
3 160 48 200 100 300 200	Case 1: 12 8 Case 2: Impossible. Case 3: 20 10

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