1014 – Ifter Party

I have an Ifter party at the **5th** day of Ramadan for the contestants. For this reason I have invited **C** contestants and arranged **P** piaju's (some kind of food, specially made for Ifter). Each contestant ate **Q** piaju's and **L** piaju's were left **(L < Q)**.

Now you have to find the number of piaju's each contestant ate.

Input

Input starts with an integer **T (≤ 325)**, denoting the number of test cases.

Each case contains two non-negative integers **P** and **L (0 ≤ L < P < 2^{31})**.

Output

For each case, print the case number and the number of possible integers in ascending order. If no such integer is found print **'impossible'**.

Sample Input	Output for Sample Input
4 10 0 13 2 300 98 1000 997	Case 1: 1 2 5 10 Case 2: 11 Case 3: 101 202 Case 4: impossible