

1215 – Finding LCM

LCM is an abbreviation used for **Least Common Multiple** in Mathematics. We say **LCM** (**a**, **b**, **c**) = **L** if and only if **L** is the least integer which is divisible by **a**, **b** and **c**.

You will be given **a**, **b** and **L**. You have to find **c** such that **LCM** (**a**, **b**, **c**) = **L**. If there are several solutions, print the one where **c** is as small as possible. If there is no solution, report so.

Input

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

Each case starts with a line containing three integers **a b L** ($1 \leq a, b \leq 10^6, 1 \leq L \leq 10^{12}$).

Output

For each case, print the case number and the minimum possible value of **c**. If no solution is found, print '**impossible**'.

Sample Input	Output for Sample Input
3	Case 1: 2
3 5 30	Case 2: 1
209475 6992 77086800	Case 3: impossible
2 6 10	