

Make It Simple

$4/8$ can be simplified to $2/4$ and $2/4$ can be simplified to $1/2$. In this problem you will be given a rational number X/Y and your task is to make it in its simplest form. For example $1/2$ is the simplest form of $4/8$.

Input

The first line of input will be the number of test cases. Each case have one line on the form X/Y where X is the numerator and Y is the denominator, $1 \leq X \leq Y \leq 1,000,000$.

Output

For each test case print "Case C: A/B" without quotes where C is the case number starting with 1 and A/B is the simplest form of X/Y .

Example

Input:

3
4/8
2/5
7/21

Output:

Case 1: 1/2
Case 2: 2/5
Case 3: 1/3