
Mixed Fractions

Input file: **standard input**
Output file: **standard output**
Time limit: 1 second
Memory limit: 256 megabytes

You are part of a team developing software to help students learn basic mathematics. You are to write one part of that software, which is to display possibly improper fractions as mixed fractions. A proper fraction is one where the numerator is less than the denominator; a mixed fraction is a whole number followed by a proper fraction. For example the improper fraction $\frac{27}{12}$ is equivalent to the mixed fraction $2\frac{3}{12}$. You should not reduce the fraction (i.e. don't change $\frac{3}{12}$ to $\frac{1}{4}$).

Input

The first line of the test case consists of a single integer T ($1 \leq T \leq 10^5$), the number of test cases. T lines follow, each consisting of two integers p, q ($1 \leq p, q \leq 10^9$), the numerator and denominator respectively.

Output

For each test case print a line consisting of 3 integers, x, y, z , such that the corresponding improper fraction $\frac{p}{q}$ can be written as $x\frac{y}{z}$.

Example

standard input	standard output
3	2 3 12
27 12	25 0 98400
2460000 98400	0 3 4000
3 4000	