

Problem B

Fraction

Time limit: 1 second
Memory: 1024 megabytes

Problem Description

Nam is an outstanding student, ranked number one in EIU in the city. Nam excels in academics, especially in math and computer science, and is admired by many for his talent. He is known for his ability to solve mathematical problems using computer science and to solve computer science problems using mathematical knowledge.

One beautiful morning, with no moon, no stars, and cool, fresh air, Nam's teacher taught him about decimal numbers, and the number that fascinated Nam the most was the repeating decimal.

A repeating decimal is a reduced fraction with a positive denominator, where the denominator has prime factors other than **2** and **5**, and the fraction can be written as a repeating decimal. For example, repeating decimals include: **0,(3)**; **1,2(3)**; **12345,(54321)** and so on. It is easy to see that a repeating decimal can be written in the form **a,(b)** or **a,b(c)**.

Since Nam is so interested, he has created a problem for his fellow talented computer science students to solve. Specifically, given two positive integers **a** and **b**, the task is to find a reduced fraction such that when the numerator is divided by the denominator, it forms a repeating decimal of the form **a,(b)**.

Input:

- The first line contains an integer **T**, representing the number of queries ($T \leq 10^5$).
- The following **T** lines: Each line contains two integers **a** and **b** ($a, b \leq 10^9$).

Output:

- Print **T** lines, each corresponding to the answer for each query.

Example:

| INPUT | OUTPUT |
|-------|---------|
| 4 | 14/9 |
| 1 5 | 8/1 |
| 7 9 | 8/3 |
| 2 6 | 1000/99 |
| 10 10 | |