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## F008B. Addition of fractions

P93090\_en

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Your task is to write a program that computes the result of adding a sequence of fractions.

Using the definition

```
struct Fraction {  
    int num, den;    // always strictly positive  
};
```

your program must include and use the function

```
Fraction addition(const Fraction & x, const Fraction & y);
```

that returns the addition of  $x$  and  $y$ , *without common factors in the numerator and denominator*.

### Input

The input is a sequence of one or more simplified fractions separated by plus signs, ended with an equal sign. Each fraction consists of its numerator, a bar, and its denominator. Numerators and denominators are natural strictly positive.

### Output

Your program must print the simplified fraction corresponding to the sum of all the given fractions.

### Observations

- In order to avoid overflows, use the function `addition()` to accumulate the partial calculations.
- Inefficient calculation of the greatest common divisor will be negatively valued.
- Using vectors is not allowed to solve this problem.

#### Sample input 1

1/2 + 1/2 =

#### Sample output 1

1/1

#### Sample input 2

1/2 + 2/3 + 3/4 + 4/5 + 5/6 =

#### Sample output 2

71/20

#### Sample input 3

1/10125 + 1/8000 + 1000/999 =

#### Sample output 3

4801073/4795200

#### Sample input 4

9/4 =

#### Sample output 4

9/4

**Problem information**

Author : Professorat de P1

Translator : Carlos Molina

Generation : 2013-09-02 15:10:11

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