Mathematic Arithmetic Operations

Given the most common mathematical operations: PEMDAS. Create an algorithm that will take 2 integers, *a* and *b*. The program will then give the value of the two terms given exponents, multiplication, division, addition, and subtraction.

**P** ARENTHETIC

**E** XPONENTS

**M** ULTIPLICATION

**D** IVISION

**A** DDITION

**S** UBTRACTION

EXTRA CREDIT: Do this without any Math Library calls.

*Input*

The input will consist of a series of pairs of integers *a* and *b*, one pair of integers per line. All integers must real numbers and be less than 10,000.

*Output*

For each pair of input integers *a* and *b,* will be an output in following order per line by: Parenthetic, Exponent, Multiplication, Division, Addition, and Subtraction.

*Sample Input*  2 5

472 2

*Sample Output*

P: (2, 5) = (2, 5)

E: 25 = 32

M: 2 x 5 = 10

D: 2 / 5 = 2.5

A: 2 + 5 = 7

S: 2 – 5 = -3

P: (472, 2) = (472, 2)

E: 4722 = 222,784

M: 472 x 2 = 944

D: 472 / 2 = 236

A: 472 + 2 = 474

S: 472 – 2 = 470