

Rational Number Calculator – Part 2

Description

Modify your rational number calculator to use overloaded operators. Use operator overloading to perform arithmetic operations. Overload the following operators:

+
-
*
/
<< (stream insertion)
+=
-=
*=
/=

Do the following to demonstrate that your program functions correctly (assuming that you have two Fraction objects named operand1 and operand2):

```
operand1 + operand2  
operand1 += operand2
```

This means that you will output the (correct) answer twice.

Do NOT use friends. All arithmetic operations must be contained in the operator overloading; you may not have separate addition, subtraction, multiplication, or division functions. There shall be no I/O in any class; stringstream may be used. All output must be contained in the operator overloading of the stream insertion operator; you may not invoke a member function to perform the output.

Output

Enter an arithmetic expression using fractions

(such as 1/2+3/4) or quit

Input: **11/52+30/104**

1/2

Input: **3/4*4/3**

1/1

Input: **7/11+0/3**

7/11

Input: **17/-5/-17/-5**

-1/1

Input: **7/3-36/-12**

16/3

Input: **5/8/0/3**

Error: cannot divide by zero

Input: **Quit**