**Rational Number Program**

**Objective**
Your assignment is to implement a program that will be capable of adding, subtracting, multiplying and dividing rational numbers.

**Example**

If you enter two rational numbers $\frac{1}{2}$ and $\frac{1}{2}$ you should get the following results.

\[
\frac{1}{2} + \frac{1}{2} = \frac{2}{2} = 1
\]

\[
\frac{1}{2} - \frac{1}{2} = 0
\]

\[
\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}
\]

\[
\frac{1}{2} / \frac{1}{2} = \frac{2}{2} = 1
\]

After typing the same rational numbers into the program we get results that should look similar to the results above. An example is shown below.
Now let’s try another set of rational numbers to check if the program truly works for this:

Let’s choose the rational numbers $\frac{3}{1}$ and $\frac{2}{1}$. Here the results should be:

\[
\frac{3}{1} + \frac{2}{1} = \frac{5}{1}
\]
\[
\frac{3}{1} - \frac{2}{1} = \frac{1}{1}
\]
\[
\frac{3}{1} \times \frac{2}{1} = \frac{6}{1}
\]
\[
\frac{3}{1} / \frac{2}{1} = \frac{3}{2}
\]

After typing these rational numbers into the program we get results that should look similar to the results above.
Would like to enter another Rational (y or n): y

1st Rational Number
Input First Number: 1
Input Second Number: 3

2nd Rational Number
Input First Number: 1
Input Second Number: 2

Choose an Operation
To add rationals... (Type 1)
To subtract rationals... (Type 2)
To multiply rationals... (Type 3)
To divide rationals... (Type 4)

(1 over 3) + (1 over 2) = (5 over 6)
Would like to do another Operation (y or n): y

Choose an Operation
To add rationals... (Type 1)
To subtract rationals... (Type 2)
To multiply rationals... (Type 3)
To divide rationals... (Type 4)

(1 over 3) - (1 over 2) = (-1 over 6)
Would like to do another Operation (y or n): y

Choose an Operation
To add rationals... (Type 1)
To subtract rationals... (Type 2)
To multiply rationals... (Type 3)
To divide rationals... (Type 4)

(1 over 3) * (1 over 2) = (1 over 6)
Would like to do another Operation (y or n): y

Choose an Operation
To add rationals... (Type 1)
To subtract rationals... (Type 2)
To multiply rationals... (Type 3)
To divide rationals... (Type 4)

(1 over 3) / (1 over 2) = (2 over 3)
Would like to do another Operation (y or n): n
Would like to enter another Rational (y or n): n
Press any key to continue...