1370 homework 3 outline

main()

- Calls showmenu() to display the options in the menu.
- Uses a loop to get the option entered by the user and calls the corresponding function (add() or subtract()) or quits the program.

add()

- Calls GetRational() twice to get the fractions.
- Calls AddRational() to add the fractions.
- Calls DisplayRational() thrice to display the two fractions entered by the user plus the one that results from adding them

subtract()

- Does the same as add() but calls SubtractRational() rather than AddRational()

GetRational()

- Gets the numerator and denominator of the fraction.
- if the denominator is zero, displays a message and repeats these two steps.

AddRational()

- Adds the fractions received.
- Reduces the resulting fraction before returning to the caller.

SubtractRational()

- Subtracts the fractions received.
- Reduces the resulting fraction before returning to the caller.

reduce()

- Reduces the num and denominator according to the algorithm provided on the handout.

Tips to solve the problem efficiently:

- Read the handout carefully making sure you understand every bit of it. As you go reading it you may want to write, using your OWN words, an outline of what it needs to do (like I did above).
- Simplify the problem to solve. For example:
    a. Don't worry about making the menu to repeat until Q is pressed (make it execute once and check if it calls the functions correctly).
    b. Don't check if denominator is zero.
    c. Don't reduce the fraction.
    d. Don't worry about not displaying the denominator when it is equal to 1.
    e. Don't worry about subtract(), just work on add() only (they are very similar).
- Once you have your "rough" program working, start adding only one of the above missing features at a time. Test thoroughly your changes and once you are satisfied with what you get, add another feature.