

The Regex Programming Assignment: Fractional Equation Solver

1. Write a regular expression `patt` that can be used to extract

(numerator,denominator,operator,numerator,denominator)

from a string containing a fraction, an arithmetic operator, and a fraction

Example:

```
>>> s = "-23/45 + 14/9"
>>> re.findall(patt,s)
[( "-23","45","+","14","49")]
>>> s = "-23/45 * 14/9"
>>> re.findall(patt,s)
[( "-23","45","*","14","49")]
```

In general, your code should handle any of the operators `+`, `-`, `*` and `/`

2. Write a Python program that

> while True:

- a) request and input a string from the user
- b) if the string is empty, break (thus ending the program execution)
- c) apply `re.findall` to get the 5-tuple as described above
- d) create two `fractions.Fraction` objects, `X` and `Y` corresponding to the inputs
- e) compute the `fractions.Fraction` object `R` that results from applying the operator to `X` and `Y`
- f) prints the equation, `" = "` and the result `R`

Use Exceptions to detect errors; if an error occurs during steps b) to e), print an error message and start the loop again at step a)

Your code should be in a file named `FractionSolver.py`.