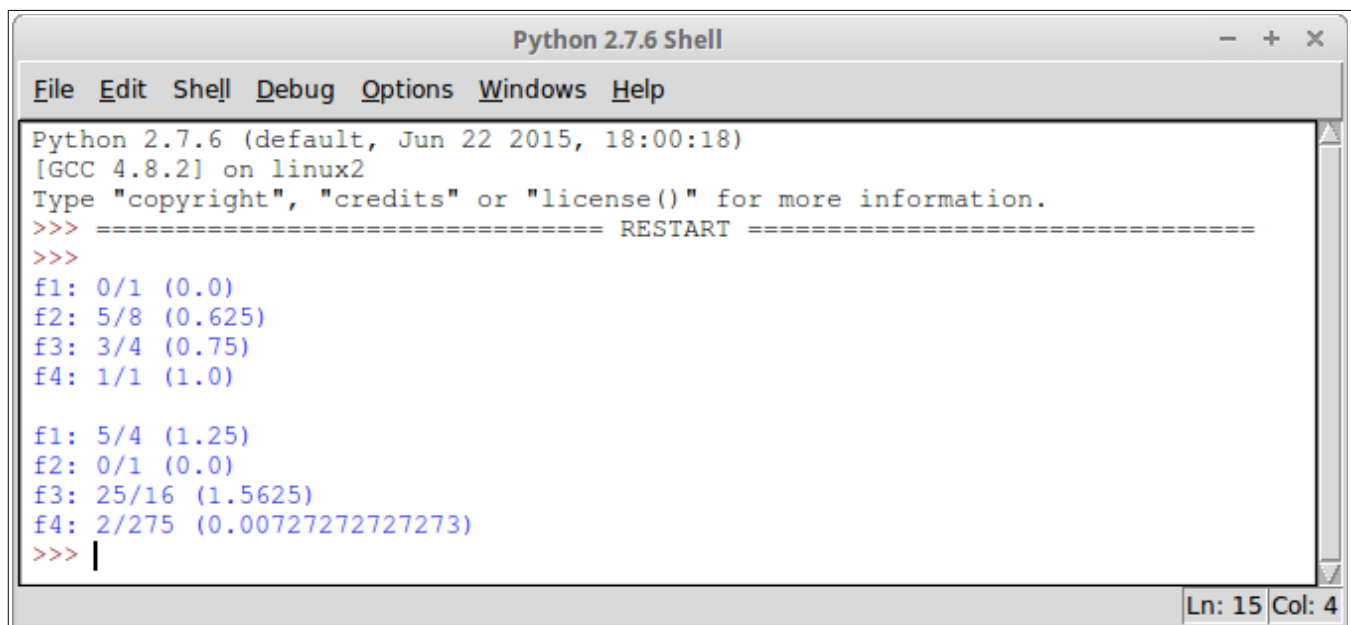


Program 5: Fraction Enhance

Starting with the template provided on the class web site, your task in this programming assignment is to write a Python program that implements a fraction class. You must provide/address the following in the class:

- A constructor that initializes fractions (with specified values for the numerator and denominator or 0/1 as default);
- Appropriate getters and setters for the instance variables;
- Proper automatic reducing/simplifying of fractions;
- Prevention of a 0 denominator;
- Overloading of the arithmetic operators on fractions (i.e., ability to add, subtract, multiply, and divide fractions using the arithmetic operators +, -, *, and / respectively);
- You must not modify the main part of the program; and
- Your output should look **exactly** like mine:



```
Python 2.7.6 Shell
File Edit Shell Debug Options Windows Help
Python 2.7.6 (default, Jun 22 2015, 18:00:18)
[GCC 4.8.2] on linux2
Type "copyright", "credits" or "license()" for more information.
>>> ===== RESTART =====
>>>
f1: 0/1 (0.0)
f2: 5/8 (0.625)
f3: 3/4 (0.75)
f4: 1/1 (1.0)

f1: 5/4 (1.25)
f2: 0/1 (0.0)
f3: 25/16 (1.5625)
f4: 2/275 (0.00727272727273)
>>> |
```

Homework: Fraction Enhance

Write a Python program that implements a fraction class (including subtraction, multiplication, and division). Make sure to put an appropriate header at the top of your program and to appropriately comment your source code as necessary. You must use the template provide, since it includes some test code to see if you have correctly implemented the fraction class. **Only submit your source code (i.e., a single .py file).**