

**Lab Goal :** The lab was designed to help you review classes, objects, files, arrays, and matrices.

**Lab Description :** Create a Rational class to store fractions.

**Addition Logic**      $\text{num1/den1} + \text{num2/den2} = (\text{num1} * \text{den2} + \text{num2} * \text{den1}) / (\text{den1} * \text{den2})$

### Sample Output :

```
test = 1/1
newOne = 3/4
test.equals(newOne) = false
```

```
newOne after test.clone() = 1/1
```

```
rOne = 1/2
rTwo = 2/3
rOne.compareTo(rTwo) = -1
rTwo.compareTo(rOne) = 1
```

```
rOne.add(rTwo) = 7/6
```

```
1/2.add(1/3) = 5/6
```

### Files Needed ::

Rational.java  
Lab01f.java

### Lab Extension :

Add subtract, multiply, and divide Methods to the class.

```
void sub( Rational other);
void mult( Rational other);
void div( Rational other);
```

### EXTRA TEST DATA

$$1/4 + 2/8 = 1/2$$

$$1/6 + 2/8 = 5/12$$