

Name:

Student ID:

219114/115 Programming I

Final Examination

18 December 2019

Stage I:

- Download file final_paruj.zip from Google Classroom for the course
- Unzip it and study the code in each python file
- You must not modify anything in OO_fraction.py and OO_complex.py
- The only two .py files that you will modify are OO_quadratic_poly.py and run_OO_quadratic_poly.py
- Implement the class Quadratic poly and once you are done, run:

```
python3 run_OO_quadratic_poly.py
```

- Verify that the outcome is correct

Stage II:

- Add the following test cases in run_OO_quadratic_poly.py:

Coefficient type is Fraction:

First operand: $(1/2)x^2 + (1/3)x + (2/5)$

Second operand: $(2/7)x^2 + (5/4)x + (6/5)$

First operand: $(1/2)x^2 + (1/3)x + (2/5)$

Constant: $2/7$

Coefficient type is Complex:

First operand: $(1.1 + 2.2j)x^2 + (3.3 + 4.4j)x + (0.1 + 0.3j)$

Second operand: $(5.5 + 6.6j)x^2 + (7.7 + 8.8j)x + (1.5 + 1.6j)$

First operand: $(1.1 + 2.2j)x^2 + (3.3 + 4.4j)x + (0.1 + 0.3j)$

Constant: $5.5 + 6.6j$

Coefficient type is Complex whose real and imaginary parts are Fraction:

First operand: $(1/2 + 1/3j)x^2 + (1/3 + 1/6j)x + (2/5 + 2/7j)$

Second operand: $(1/4 + 1/11j)x^2 + (3/4 + 3/5j)x + (5/4 + 6/5j)$

First operand: $(1/2 + 1/3j)x^2 + (1/3 + 1/6j)x + (2/5 + 2/7j)$

Constant: $1/4 + 1/11j$

- Once you are done adding the above test cases, run:

```
python3 run_OO_quadratic_poly.py
```

- Verify that the outcome is correct according to what is shown in the result.txt file

Submission:

- **Put all the .py files in the StudentID_final directory. StudentID is your KU student ID.**
- **Also, put a report.pdf file in that directory. In the report:**
 - **Describe the status of your work whether it is 100% complete or is still not done.**
 - **If it is not done, explain what you have done so far and any bugs you have in your code.**
 - **If you are 100% done, include a screenshot that shows the outcome when all test cases are included.**
- **Zip the StudentID_final directory and submit the StudentID_final.zip file to the course's Google Classroom. StudentID is your KU student ID.**

*** You will not be graded without a report in report.pdf ***