

# **GIT Department of Computer Engineering**

## **CSE 222/505**

### **Spring 2014**

## **Homework 01**

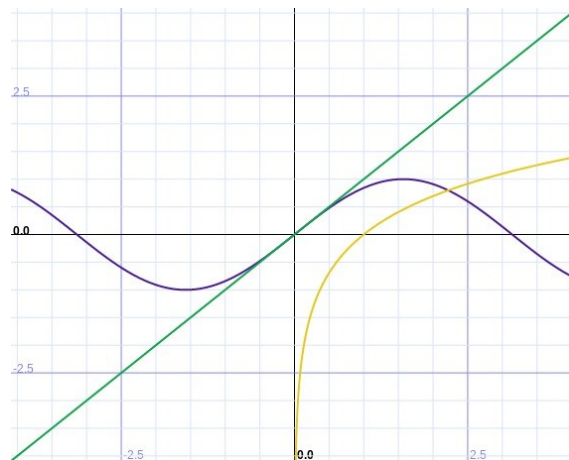
### **Due date: March 2<sup>nd</sup> 2014 23:59**

Follow the software development model introduced in Chapter 1 of the textbook(2005 edition) to design a function visualization program. Your first HW is important because other homeworks will depend on this homework.

Your program will read the function name, the range of the function and the color of the visualization from a given file. For example, if the given file contains

```
sin(x), -3.0, +3.0, violet  
x, -3.0, +3.0, green  
log(x), 0, 3.0, yellow
```

your output will be similar to



You should design both a GUI and console based interface for your program (just like the phone directory program from the book). Your interface should take commands like read file, clear visualization, etc.

Use EA to do following

- Define the system requirements
- Draw the use case diagrams for all the system actors
- Define the use case scenarios for all actors and procedures
- Design your system, name your classes and methods and draw the UML diagrams
- Give your sequence diagrams and algorithms for each procedure.

Use NetBeans to

- Implement your system

- Write your unit tests in Junit

Finally

- Include sample runs and unit test results in your submission.
- All phases of the software development should be clearly marked in your submission.
- You should develop your software using AE and Java in NetBeans.
- You will submit your NetBeans project and other software engineering documents through moodle.
- Do not send any files by email.
- Do not use any other libraries, database systems etc.