Wiki sheet for task 1 11.12.19

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**General orientation:**

At this project [1] we build and improve many classes –

Monom and Polynom classes has total fixed. (include their tests)

ComplexFunction and Functions\_GUI are build.

**In the Monom class:** those methods - public Monom(String s) && equals(Monom m) are changed.

The methods 'sub' – substract between Monoms, 'initFromString' – init Monom from Srting Input, 'copy' – deep copy, add to that class.

**In the Polynom class:** those methods – area, root, equals, multiply as changed.

The methods 'sub/substract' – substract between Polynom/Monom, 'initFromString' – init Polynom from Srting Input, 'copy' – deep copy, 'sortpol' – sort Polynom by his powers, 'sizepol' – return many Monoms their in the Polynom, add to that class.

Both their tests as changed to JUINT pattern test.

**In the ComplexFunction** **class:** this is a new class in this project. The role of this class is to do many operation(by enum) like plus, multiply, divide, comp ( f(f(x)) ), min and max, between two complex math expressions. In addition there are many methods: right – return the right expression in the operation. Left - return the left expression in the operation. 'initFromString' – init complex from Srting Input, 'copy' – deep copy**. About the equals function** there is a problem to compare between two complex math expressions after many operation. All the operation are calculate in the public double f(double x) function.

For this class has a ComplexFunction test. the purpose is to check that all function in the class are working well.

**In the Function\_GUI** **class:** this is a new class in this project. The role of this class is to draw functions by GUI INTERFACE. The interface init by many parameters like width or height size screen, resulation of the function, the colors lines etc'.

In addition in that class there a functions for read/write from/to file (with Json file also).

To build this project we used ArrayList structure.