

This project contains Monom class that implements function interface, and Polynom class that implements from Polynom_able. The project also contains test classes for Polynom and Monom.

Polynom class gets a polynom as String, the Polynom class has the functions: add, f, subtract, multiply, equals, is zero, root, copy and area. The Polynom class also has a iterator.

add: the function add gets monom or polynom_able and add the input to the polynom

f: gets a double and return the value of the function with the value of the double

subtract: get a polynom_able and take it off from the current polynom

multiply: get a polynom_able or a Monom and multiply the current polynom and the input

equals: check if two polynoms are equal

isZero: check if the polynom is zero

root: get value of two points (x_0 and x_1) and epsilon and find x if $f(x)=0$

copy: return a polynom_able copy of the current polynom

area: get value of two points (x_0 and x_1) and epsilon and return the area between both points and the graph

The Monom class gets a Monom as String or as two values of the coefficient and the power the Monom class has the functions: f, multiply, equals, isZero and add.

f: gets double and return the value of the function using the input.

multiply: get monom and multiply it with the current monom

equals: get monom and check if it equals to the current monom

isZero: check if the monom is equal to zero

add: get a monom and add it to the current monom but only if the two monoms has the same power.

The class complex function is create another kind of function that represent as first the operation you want to do and then two function that the operation is over them.