Program

Course work program

Name project: reverParabPlusX

File   Edit   About

Enter first function (Blue color)

Enter name function: Fx

x:	-4.0	-3.0	-2.0	-1.0	0.0	1.0	2.0	3.0
y:	-15.	-8.0	-3.0	0.0	1.0	0.0	-3.0	-8.0

Create   Clear   Save function   Open function

Enter second function (Red color)

Enter name function: Gx

x:	-4.0	-3.0	-2.0	-1.0	0.0	1.0	2.0	3.0
y:	4.0	3.0	2.0	1.0	0.0	-1.0	-2.0	-3.0

Create   Clear   Save function   Open function

From: [   ] To: [   ]   Build f(x) - g(x)   Max: y = 1.2496;
                                                  x = 0.48;

Define Limits

Update Graph   Clear Graph

XML
- XML()
- XML(ArrayList<E>)
- fromXML(String) : void
- getArrayOfPointsXml() : ArrayList<E>
- add(E)

Point
- Point()
- Point(Double, Double)
- Point(Point)
- getX() : double
- setX(double) : void
- getY() : double
- setY(double) : void
- toString() : String
- compareTo(Object) : int

XMLWriter
- XMLWriter(ArrayList<Point>, String)
- fromXML() : void

XMLReader
- XMLReader()
- XMLReader(String)
- fromXML(String) : void
- readXML(NodeList) : void
- getArrayOfPointsXml() : ArrayList<Point>

MaxOnFunction
- findMaxToDichotomy() : Point
- writeMaxInXML(String) : void

Interpolation
- Interpolate() : void
- domainOfDefinition(ArrayList<Point>, ArrayList<Point>) : ArrayList<Double>

Equation
- Equation(ArrayList<Point>, ArrayList<Point>)
- funcDiff(ArrayList<Point>, ArrayList<Point>) : void
- getFuncDifference() : ArrayList<Point>

FunctionData
- FunctionData(X, Paint, double)
- getOperation() : DoubleUnaryOperator
- getPaint() : Paint
- getWidth() : double

Function
- Function(Function)
- Function(String)
- Function(ArrayList<Point>)
- Function()
- getArrayOfPoints() : ArrayList<Point>
- getLagrangeFunc() : ArrayList<Point>
- getDomainOfDefinition() : ArrayList<Double>
- setDomainOfDefinition(ArrayList<Point>, ArrayList<Point>) : void
- setDomainOfDefinition(ArrayList<Double>) : void
- writeFuncInXML(String) : void
- writeLagrangeFuncInXML(String) : void
- findMaxToDichotomy() : Point
- writeMaxInXML(String) : void
- interpolate() : void
- applyAs(double) : double

NumberTextField
- NumberTextField()
- replaceText(int, int, String) : void
- validate(String) : boolean

ReportUtils
- saveFiles(File, WritableImage) : void
- addTitle(Document) : void
- addImage(Document, WritableImage) : void

GraphBuilder
- GraphBuilder(Pane)
- minPoint(double, double, DoubleUnaryOperator) : Point
- maxPoint(double, double, DoubleUnaryOperator) : Point
- clearFunctions() : void
- addFunction(DoubleUnaryOperator, Paint, double) : void
- drawGraph(double, double) : void

ShapesGraph
- ShapesGraph(ShapesGraph)
- ShapesGraph()
- start(Stage) : void
- createHelpButton(Stage) : VBox
- createTableFunction(Stage) : VBox
- createMenuBar(Stage, Pane) : MenuBar
- configuringFileChooserFunc(FileChooser) : void
- configuringFileChooserPrj(FileChooser) : void

Main
- start(Stage) : void
- main(String[]) : void