

IVS project 2

Generated by Doxygen 1.8.18

1 Namespace Index	1
1.1 Namespace List	1
2 Hierarchical Index	3
2.1 Class Hierarchy	3
3 Class Index	5
3.1 Class List	5
4 File Index	7
4.1 File List	7
5 Namespace Documentation	9
5.1 Kalkulacka Namespace Reference	9
5.2 Kalkulacka.Properties Namespace Reference	9
5.3 MathComponentsNS Namespace Reference	9
5.4 MathTest Namespace Reference	9
5.5 Profiling Namespace Reference	9
6 Class Documentation	11
6.1 MathTest.BasicMathTests Class Reference	11
6.1.1 Member Function Documentation	11
6.1.1.1 RoundOff()	11
6.1.1.2 TestAddition()	12
6.1.1.3 TestArccos()	12
6.1.1.4 TestArcsin()	12
6.1.1.5 TestArctan()	12
6.1.1.6 TestCos()	12
6.1.1.7 TestDivision()	12
6.1.1.8 TestExponentiation()	12
6.1.1.9 TestFactorial()	12
6.1.1.10 TestLogarithm()	13
6.1.1.11 TestMultiplication()	13
6.1.1.12 TestRandom()	13
6.1.1.13 TestRoot()	13
6.1.1.14 TestSin()	13
6.1.1.15 TestSubtraction()	13
6.1.1.16 TestTan()	13
6.2 Kalkulacka.Form1 Class Reference	14
6.2.1 Constructor & Destructor Documentation	16
6.2.1.1 Form1()	16
6.2.2 Member Function Documentation	16
6.2.2.1 Calculate()	16
6.2.2.2 Clear()	17

6.2.2.3 decPoint_Click()	17
6.2.2.4 Dispose()	17
6.2.2.5 Form1_Load()	17
6.2.2.6 InitializeComponent()	17
6.2.2.7 InstantOp_Click()	18
6.2.2.8 length()	18
6.2.2.9 Mminus_Click()	18
6.2.2.10 Mplus_Click()	18
6.2.2.11 MRC_Click()	18
6.2.2.12 Number_click()	19
6.2.2.13 off_Click()	19
6.2.2.14 operation_Click()	19
6.2.2.15 shift_Click()	19
6.2.2.16 subtraction_Click()	19
6.2.2.17 textBox1_KeyPress()	20
6.2.2.18 Valid_Chk()	20
6.2.2.19 ZeroClear()	20
6.2.3 Member Data Documentation	20
6.2.3.1 AC	20
6.2.3.2 addition	20
6.2.3.3 ans	20
6.2.3.4 ANS	21
6.2.3.5 arccos	21
6.2.3.6 arcsin	21
6.2.3.7 arctan	21
6.2.3.8 bool	21
6.2.3.9 components	21
6.2.3.10 cos	21
6.2.3.11 decPoint	22
6.2.3.12 del	22
6.2.3.13 DisplayedM	22
6.2.3.14 division	22
6.2.3.15 equals	22
6.2.3.16 erase	22
6.2.3.17 euler	22
6.2.3.18 factorial	22
6.2.3.19 firstNum	23
6.2.3.20 listPanel	23
6.2.3.21 ln	23
6.2.3.22 log	23
6.2.3.23 logDec	23
6.2.3.24 MEM	23

6.2.3.25 Mminus	23
6.2.3.26 Mplus	23
6.2.3.27 MRC	24
6.2.3.28 multiplication	24
6.2.3.29 multiplication10	24
6.2.3.30 newMath	24
6.2.3.31 num0	24
6.2.3.32 num1	24
6.2.3.33 num2	24
6.2.3.34 num3	25
6.2.3.35 num4	25
6.2.3.36 num5	25
6.2.3.37 num6	25
6.2.3.38 num7	25
6.2.3.39 num8	25
6.2.3.40 num9	25
6.2.3.41 off	25
6.2.3.42 operationPerformed	26
6.2.3.43 pi	26
6.2.3.44 Power2	26
6.2.3.45 Power3	26
6.2.3.46 powerX	26
6.2.3.47 PowerXMinus1	26
6.2.3.48 RAND	26
6.2.3.49 repeatEq	26
6.2.3.50 root	27
6.2.3.51 root2	27
6.2.3.52 root3	27
6.2.3.53 secondNum	27
6.2.3.54 shift	27
6.2.3.55 shiftClicked	27
6.2.3.56 shiftClickedPanel	27
6.2.3.57 shiftUnclickedPanel	27
6.2.3.58 sin	28
6.2.3.59 subtraction	28
6.2.3.60 tan	28
6.2.3.61 textBox1	28
6.3 MathComponentsNS.MathComponents Class Reference	28
6.3.1 Member Function Documentation	29
6.3.1.1 Add() [1/2]	29
6.3.1.2 Add() [2/2]	29
6.3.1.3 Arccos() [1/2]	30

6.3.1.4 Arccos()	[2/2]	30
6.3.1.5 Arcsin()	[1/2]	30
6.3.1.6 Arcsin()	[2/2]	30
6.3.1.7 Arctan()	[1/2]	30
6.3.1.8 Arctan()	[2/2]	30
6.3.1.9 Cos()	[1/2]	30
6.3.1.10 Cos()	[2/2]	31
6.3.1.11 Divide()	[1/2]	31
6.3.1.12 Divide()	[2/2]	31
6.3.1.13 Exponentiate()	[1/2]	31
6.3.1.14 Exponentiate()	[2/2]	31
6.3.1.15 Factorial()	[1/2]	31
6.3.1.16 Factorial()	[2/2]	32
6.3.1.17 Logarithm()	[1/2]	32
6.3.1.18 Logarithm()	[2/2]	32
6.3.1.19 Multiply()	[1/2]	32
6.3.1.20 Multiply()	[2/2]	32
6.3.1.21 Random()	[1/2]	32
6.3.1.22 Random()	[2/2]	33
6.3.1.23 Root()	[1/2]	33
6.3.1.24 Root()	[2/2]	33
6.3.1.25 Sin()	[1/2]	33
6.3.1.26 Sin()	[2/2]	33
6.3.1.27 Subtract()	[1/2]	33
6.3.1.28 Subtract()	[2/2]	34
6.3.1.29 Tan()	[1/2]	34
6.3.1.30 Tan()	[2/2]	34
6.3.1.31 TruncateToFit()	[1/2]	34
6.3.1.32 TruncateToFit()	[2/2]	34
6.3.1.33 UnconstrainedFactorial()	[1/2]	34
6.3.1.34 UnconstrainedFactorial()	[2/2]	34
6.3.2 Member Data Documentation		35
6.3.2.1 bool		35
6.3.2.2 constE		38
6.3.2.3 constPI		38
6.3.2.4 error		38
6.4 Kalkulacka.Program Class Reference		39
6.4.1 Member Function Documentation		39
6.4.1.1 Main()		39
6.5 Profiling.Program Class Reference		39
6.5.1 Member Function Documentation		39
6.5.1.1 Main()		39

7 File Documentation	41
7.1 Kalkulacka/Form1.cs File Reference	41
7.1.1 Detailed Description	41
7.2 Kalkulacka/Form1.Designer.cs File Reference	41
7.3 Kalkulacka/Math.cs File Reference	41
7.3.1 Detailed Description	42
7.4 Profiling/Math.cs File Reference	42
7.4.1 Detailed Description	42
7.5 Kalkulacka/Program.cs File Reference	42
7.6 Profiling/Program.cs File Reference	43
7.7 Kalkulacka/Properties/AssemblyInfo.cs File Reference	43
7.8 Profiling/Properties/AssemblyInfo.cs File Reference	43
7.9 Kalkulacka/Properties/Resources.Designer.cs File Reference	43
7.10 Kalkulacka/Properties/Settings.Designer.cs File Reference	43
7.11 MathTest/BasicMathTests.cs File Reference	43
7.12 MathTest/obj/Debug/netcoreapp3.1/MathTest.AssemblyInfo.cs File Reference	44
7.13 MathTest/obj/Release/netcoreapp3.1/MathTest.AssemblyInfo.cs File Reference	44
7.14 MathTest/obj/x64/Release/netcoreapp3.1/MathTest.AssemblyInfo.cs File Reference	44
Index	45

Chapter 1

Namespace Index

1.1 Namespace List

Here is a list of all namespaces with brief descriptions:

Kalkulacka	9
Kalkulacka.Properties	9
MathComponentsNS	9
MathTest	9
Profiling	9

Chapter 2

Hierarchical Index

2.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

MathTest.BasicMathTests	11
Form	
Kalkulacka.Form1	14
MathComponentsNS.MathComponents	28
Kalkulacka.Program	39
Profiling.Program	39

Chapter 3

Class Index

3.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

MathTest.BasicMathTests	11
Kalkulacka.Form1	14
MathComponentsNS.MathComponents	28
Kalkulacka.Program	39
Profiling.Program	39

Chapter 4

File Index

4.1 File List

Here is a list of all files with brief descriptions:

Kalkulacka/ Form1.cs	
File responsible for handling calculator UI and integrating functions from math lib	41
Kalkulacka/ Form1.Designer.cs	41
Kalkulacka/ Math.cs	
File responsible for implementing math operations and constants all functions return (bool, decimal) tuple where first operand is set to true if there is an error (e.g. out of bounds, division by zero), second is result	41
Kalkulacka/ Program.cs	42
Kalkulacka/Properties/ AssemblyInfo.cs	43
Kalkulacka/Properties/ Resources.Designer.cs	43
Kalkulacka/Properties/ Settings.Designer.cs	43
MathTest/ BasicMathTests.cs	43
MathTest/obj/Debug/netcoreapp3.1/ MathTest.AssemblyInfo.cs	44
MathTest/obj/Release/netcoreapp3.1/ MathTest.AssemblyInfo.cs	44
MathTest/obj/x64/Release/netcoreapp3.1/ MathTest.AssemblyInfo.cs	44
Profiling/ Math.cs	
File responsible for implementing math operations and constants all functions return (bool, decimal) tuple where first operand is set to true if there is an error (e.g. out of bounds, division by zero), second is result	42
Profiling/ Program.cs	43
Profiling/Properties/ AssemblyInfo.cs	43

Chapter 5

Namespace Documentation

5.1 Kalkulacka Namespace Reference

Namespaces

- namespace [Properties](#)

Classes

- class [Form1](#)
- class [Program](#)

5.2 Kalkulacka.Properties Namespace Reference

Classes

- class **Resources**
A strongly-typed resource class, for looking up localized strings, etc.
- class **Settings**

5.3 MathComponentsNS Namespace Reference

Classes

- class [MathComponents](#)

5.4 MathTest Namespace Reference

Classes

- class [BasicMathTests](#)

5.5 Profiling Namespace Reference

Classes

- class [Program](#)

Chapter 6

Class Documentation

6.1 MathTest.BasicMathTests Class Reference

Public Member Functions

- void [TestAddition](#) ()
- void [TestSubtraction](#) ()
- void [TestMultiplication](#) ()
- void [TestDivision](#) ()
- void [TestExponentiation](#) ()
- void [TestRoot](#) ()
- void [TestLogarithm](#) ()
- void [TestSin](#) ()
- void [TestCos](#) ()
- void [TestTan](#) ()
- void [TestArcsin](#) ()
- void [TestArccos](#) ()
- void [TestArctan](#) ()
- void [TestFactorial](#) ()
- void [TestRandom](#) ()

Static Public Member Functions

- static decimal [RoundOff](#) (decimal value)

6.1.1 Member Function Documentation

6.1.1.1 RoundOff()

```
static decimal MathTest.BasicMathTests.RoundOff (
    decimal value ) [inline], [static]
```

6.1.1.2 TestAddition()

```
void MathTest.BasicMathTests.TestAddition ( ) [inline]
```

6.1.1.3 TestArccos()

```
void MathTest.BasicMathTests.TestArccos ( ) [inline]
```

6.1.1.4 TestArcsin()

```
void MathTest.BasicMathTests.TestArcsin ( ) [inline]
```

6.1.1.5 TestArctan()

```
void MathTest.BasicMathTests.TestArctan ( ) [inline]
```

6.1.1.6 TestCos()

```
void MathTest.BasicMathTests.TestCos ( ) [inline]
```

6.1.1.7 TestDivision()

```
void MathTest.BasicMathTests.TestDivision ( ) [inline]
```

6.1.1.8 TestExponentiation()

```
void MathTest.BasicMathTests.TestExponentiation ( ) [inline]
```

6.1.1.9 TestFactorial()

```
void MathTest.BasicMathTests.TestFactorial ( ) [inline]
```

6.1.1.10 TestLogarithm()

```
void MathTest.BasicMathTests.TestLogarithm ( ) [inline]
```

6.1.1.11 TestMultiplication()

```
void MathTest.BasicMathTests.TestMultiplication ( ) [inline]
```

6.1.1.12 TestRandom()

```
void MathTest.BasicMathTests.TestRandom ( ) [inline]
```

6.1.1.13 TestRoot()

```
void MathTest.BasicMathTests.TestRoot ( ) [inline]
```

6.1.1.14 TestSin()

```
void MathTest.BasicMathTests.TestSin ( ) [inline]
```

6.1.1.15 TestSubtraction()

```
void MathTest.BasicMathTests.TestSubtraction ( ) [inline]
```

6.1.1.16 TestTan()

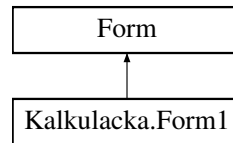
```
void MathTest.BasicMathTests.TestTan ( ) [inline]
```

The documentation for this class was generated from the following file:

- MathTest/[BasicMathTests.cs](#)

6.2 Kalkulacka.Form1 Class Reference

Inheritance diagram for Kalkulacka.Form1:



Public Member Functions

- [Form1](#) ()
- void [Valid_Chk](#) (([bool](#), decimal) result)
Function for checking validity of result Sets text box to result if all correct or error.
- void [ZeroClear](#) ()
Function for clearing textbox to zero-state.
- void [Clear](#) ()
Fuction for clearing textbox to NULL-state.

Public Attributes

- [bool](#)
Function for applying unary operations Integrated with math lib.

Protected Member Functions

- override void [Dispose](#) ([bool](#) disposing)
Clean up any resources being used.

Private Member Functions

- void [Form1_Load](#) (object sender, EventArgs e)
Init function for UI setup.
- void [length](#) (char d)
Function checking length and appending char if possible.
- void [shift_Click](#) (object sender, EventArgs e)
Function for switching panel after click on SHIFT.
- void [off_Click](#) (object sender, EventArgs e)
Function for switching off the application.
- void [Number_click](#) (object sender, EventArgs e)
Number button click handler.
- void [decPoint_Click](#) (object sender, EventArgs e)
Decimal point button handler Only one decimal point allowed.
- void [subtraction_Click](#) (object sender, EventArgs e)
Minus sign click handler.
- void [textBox1_KeyPress](#) (object sender, KeyPressEventArgs e)

- Function to check if there is enough space in textbox for writing pressed key (WIP)*

 - void `operation_Click` (object sender, EventArgs e)

Function for handling operation click.
- void `InstantOp_Click` (object sender, EventArgs e)

Function for applying unary operations Integrated with math lib.
- decimal `Calculate` ()
- void `Mplus_Click` (object sender, EventArgs e)

Function for addition to memory Memory icon control.
- void `MRC_Click` (object sender, EventArgs e)

Function for recalling memory.
- void `Mminus_Click` (object sender, EventArgs e)

Function for subtracting memory Memory icon control.
- void `InitializeComponent` ()

Required method for Designer support - do not modify the contents of this method with the code editor.

Private Attributes

- List< Panel > `listPanel` = new List<Panel>()
 - `MathComponentsNS.MathComponents newMath` = new `MathComponentsNS.MathComponents`()
 - bool `shiftClicked` = false
 - string `operationPerformed` = ""
 - decimal `firstNum` = 0
 - decimal `secondNum` = 0
 - decimal `MEM` = 0
 - decimal `ans` = 0
 - bool `erase` = false
 - bool `repeatEq` = false
 - System.ComponentModel.IContainer `components` = null
- Required designer variable.*
- System.Windows.Forms.TextBox `textBox1`
 - System.Windows.Forms.Button `num1`
 - System.Windows.Forms.Button `num2`
 - System.Windows.Forms.Button `num3`
 - System.Windows.Forms.Button `num4`
 - System.Windows.Forms.Button `num5`
 - System.Windows.Forms.Button `num6`
 - System.Windows.Forms.Button `num7`
 - System.Windows.Forms.Button `num8`
 - System.Windows.Forms.Button `num9`
 - System.Windows.Forms.Button `num0`
 - System.Windows.Forms.Button `ANS`
 - System.Windows.Forms.Button `decPoint`
 - System.Windows.Forms.Button `division`
 - System.Windows.Forms.Button `multiplication`
 - System.Windows.Forms.Button `subtraction`
 - System.Windows.Forms.Button `addition`
 - System.Windows.Forms.Button `RAND`
 - System.Windows.Forms.Button `equals`
 - System.Windows.Forms.Button `AC`
 - System.Windows.Forms.Button `del`
 - System.Windows.Forms.Button `sin`
 - System.Windows.Forms.Button `shift`

- System.Windows.Forms.Panel [shiftUnclickedPanel](#)
- System.Windows.Forms.Panel [shiftClickedPanel](#)
- System.Windows.Forms.Button [arcsin](#)
- System.Windows.Forms.Button [Power2](#)
- System.Windows.Forms.Button [Power3](#)
- System.Windows.Forms.Button [powerX](#)
- System.Windows.Forms.Button [log](#)
- System.Windows.Forms.Button [ln](#)
- System.Windows.Forms.Button [pi](#)
- System.Windows.Forms.Button [factorial](#)
- System.Windows.Forms.Button [root2](#)
- System.Windows.Forms.Button [cos](#)
- System.Windows.Forms.Button [arccos](#)
- System.Windows.Forms.Button [multiplication10](#)
- System.Windows.Forms.Button [PowerXMinus1](#)
- System.Windows.Forms.Button [root](#)
- System.Windows.Forms.Button [logDec](#)
- System.Windows.Forms.Button [root3](#)
- System.Windows.Forms.Button [euler](#)
- System.Windows.Forms.Button [MRC](#)
- System.Windows.Forms.Button [Mplus](#)
- System.Windows.Forms.Button [Mminus](#)
- System.Windows.Forms.Button [off](#)
- System.Windows.Forms.Button [tan](#)
- System.Windows.Forms.Button [arctan](#)
- System.Windows.Forms.Label [DisplayedM](#)

6.2.1 Constructor & Destructor Documentation

6.2.1.1 Form1()

```
Kalkulacka.Form1.Form1 ( ) [inline]
```

6.2.2 Member Function Documentation

6.2.2.1 Calculate()

```
decimal Kalkulacka.Form1.Calculate ( ) [inline], [private]
```


6.2.2.2 Clear()

```
void Kalkulacka.Form1.Clear ( ) [inline]
```

Fuction for clearing textbox to NULL-state.

6.2.2.3 decPoint_Click()

```
void Kalkulacka.Form1.decPoint_Click (
    object sender,
    EventArgs e ) [inline], [private]
```

Decimal point button handler Only one decimal point allowed.

6.2.2.4 Dispose()

```
override void Kalkulacka.Form1.Dispose (
    bool disposing ) [inline], [protected]
```

Clean up any resources being used.

Parameters

<i>disposing</i>	true if managed resources should be disposed; otherwise, false.
------------------	---

6.2.2.5 Form1_Load()

```
void Kalkulacka.Form1.Form1_Load (
    object sender,
    EventArgs e ) [inline], [private]
```

Init function for UI setup.

6.2.2.6 InitializeComponent()

```
void Kalkulacka.Form1.InitializeComponent ( ) [inline], [private]
```

Required method for Designer support - do not modify the contents of this method with the code editor.

6.2.2.7 InstantOp_Click()

```
void Kalkulacka.Form1.InstantOp_Click (
    object sender,
    EventArgs e ) [inline], [private]
```

Function for applying unary operations Integrated with math lib.

6.2.2.8 length()

```
void Kalkulacka.Form1.length (
    char d ) [inline], [private]
```

Function checking length and appending char if possible.

Parameters

in	<i>char</i>	d (character to be appended)
----	-------------	------------------------------

6.2.2.9 Mminus_Click()

```
void Kalkulacka.Form1.Mminus_Click (
    object sender,
    EventArgs e ) [inline], [private]
```

Function for subtracting memory Memory icon control.

6.2.2.10 Mplus_Click()

```
void Kalkulacka.Form1.Mplus_Click (
    object sender,
    EventArgs e ) [inline], [private]
```

Function for addition to memory Memory icon control.

6.2.2.11 MRC_Click()

```
void Kalkulacka.Form1.MRC_Click (
    object sender,
    EventArgs e ) [inline], [private]
```

Function for recalling memory.

6.2.2.12 Number_click()

```
void Kalkulacka.Form1.Number_click (
    object sender,
    EventArgs e ) [inline], [private]
```

Number button click handler.

6.2.2.13 off_Click()

```
void Kalkulacka.Form1.off_Click (
    object sender,
    EventArgs e ) [inline], [private]
```

Function for switching off the application.

6.2.2.14 operation_Click()

```
void Kalkulacka.Form1.operation_Click (
    object sender,
    EventArgs e ) [inline], [private]
```

Function for handling operation click.

6.2.2.15 shift_Click()

```
void Kalkulacka.Form1.shift_Click (
    object sender,
    EventArgs e ) [inline], [private]
```

Function for switching panel after click on SHIFT.

6.2.2.16 subtraction_Click()

```
void Kalkulacka.Form1.subtraction_Click (
    object sender,
    EventArgs e ) [inline], [private]
```

Minus sign click handler.

6.2.2.17 `textBox1_KeyPress()`

```
void Kalkulacka.Form1.textBox1_KeyPress (
    object sender,
    KeyPressEventArgs e ) [inline], [private]
```

Function to check if there is enough space in textbox for writing pressed key (WIP)

6.2.2.18 `Valid_Chk()`

```
void Kalkulacka.Form1.Valid_Chk (
    (bool, decimal) result ) [inline]
```

Function for checking validity of result Sets text box to result if all correct or error.

6.2.2.19 `ZeroClear()`

```
void Kalkulacka.Form1.ZeroClear ( ) [inline]
```

Function for clearing textbox to zero-state.

6.2.3 Member Data Documentation

6.2.3.1 `AC`

```
System.Windows.Forms.Button Kalkulacka.Form1.AC [private]
```

6.2.3.2 `addition`

```
System.Windows.Forms.Button Kalkulacka.Form1.addition [private]
```

6.2.3.3 `ans`

```
decimal Kalkulacka.Form1.ans = 0 [private]
```

6.2.3.4 ANS

`System.Windows.Forms.Button Kalkulacka.Form1.ANS [private]`

6.2.3.5 arccos

`System.Windows.Forms.Button Kalkulacka.Form1.arccos [private]`

6.2.3.6 arcsin

`System.Windows.Forms.Button Kalkulacka.Form1.arcsin [private]`

6.2.3.7 arctan

`System.Windows.Forms.Button Kalkulacka.Form1.arctan [private]`

6.2.3.8 bool

`Kalkulacka.Form1.bool`

Function for applying unary operations Integrated with math lib.

6.2.3.9 components

`System.ComponentModel.IContainer Kalkulacka.Form1.components = null [private]`

Required designer variable.

6.2.3.10 cos

`System.Windows.Forms.Button Kalkulacka.Form1.cos [private]`

6.2.3.11 decPoint

`System.Windows.Forms.Button Kalkulacka.Form1.decPoint [private]`

6.2.3.12 del

`System.Windows.Forms.Button Kalkulacka.Form1.del [private]`

6.2.3.13 DisplayedM

`System.Windows.Forms.Label Kalkulacka.Form1.DisplayedM [private]`

6.2.3.14 division

`System.Windows.Forms.Button Kalkulacka.Form1.division [private]`

6.2.3.15 equals

`System.Windows.Forms.Button Kalkulacka.Form1.equals [private]`

6.2.3.16 erase

`bool Kalkulacka.Form1.erase = false [private]`

6.2.3.17 euler

`System.Windows.Forms.Button Kalkulacka.Form1.euler [private]`

6.2.3.18 factorial

`System.Windows.Forms.Button Kalkulacka.Form1.factorial [private]`

6.2.3.19 firstNum

```
decimal Kalkulacka.Form1.firstNum = 0 [private]
```

6.2.3.20 listPanel

```
List<Panel> Kalkulacka.Form1.listPanel = new List<Panel>() [private]
```

6.2.3.21 ln

```
System.Windows.Forms.Button Kalkulacka.Form1.ln [private]
```

6.2.3.22 log

```
System.Windows.Forms.Button Kalkulacka.Form1.log [private]
```

6.2.3.23 logDec

```
System.Windows.Forms.Button Kalkulacka.Form1.logDec [private]
```

6.2.3.24 MEM

```
decimal Kalkulacka.Form1.MEM = 0 [private]
```

6.2.3.25 Mminus

```
System.Windows.Forms.Button Kalkulacka.Form1.Mminus [private]
```

6.2.3.26 Mplus

```
System.Windows.Forms.Button Kalkulacka.Form1.Mplus [private]
```

6.2.3.27 MRC

`System.Windows.Forms.Button Kalkulacka.Form1.MRC [private]`

6.2.3.28 multiplication

`System.Windows.Forms.Button Kalkulacka.Form1.multiplication [private]`

6.2.3.29 multiplication10

`System.Windows.Forms.Button Kalkulacka.Form1.multiplication10 [private]`

6.2.3.30 newMath

`MathComponentsNS.MathComponents Kalkulacka.Form1.newMath = new MathComponentsNS.MathComponents()
[private]`

6.2.3.31 num0

`System.Windows.Forms.Button Kalkulacka.Form1.num0 [private]`

6.2.3.32 num1

`System.Windows.Forms.Button Kalkulacka.Form1.num1 [private]`

6.2.3.33 num2

`System.Windows.Forms.Button Kalkulacka.Form1.num2 [private]`

6.2.3.34 num3

System.Windows.Forms.Button Kalkulacka.Form1.num3 [private]

6.2.3.35 num4

System.Windows.Forms.Button Kalkulacka.Form1.num4 [private]

6.2.3.36 num5

System.Windows.Forms.Button Kalkulacka.Form1.num5 [private]

6.2.3.37 num6

System.Windows.Forms.Button Kalkulacka.Form1.num6 [private]

6.2.3.38 num7

System.Windows.Forms.Button Kalkulacka.Form1.num7 [private]

6.2.3.39 num8

System.Windows.Forms.Button Kalkulacka.Form1.num8 [private]

6.2.3.40 num9

System.Windows.Forms.Button Kalkulacka.Form1.num9 [private]

6.2.3.41 off

System.Windows.Forms.Button Kalkulacka.Form1.off [private]

6.2.3.42 operationPerformed

```
string Kalkulacka.Form1.operationPerformed = "" [private]
```

6.2.3.43 pi

```
System.Windows.Forms.Button Kalkulacka.Form1.pi [private]
```

6.2.3.44 Power2

```
System.Windows.Forms.Button Kalkulacka.Form1.Power2 [private]
```

6.2.3.45 Power3

```
System.Windows.Forms.Button Kalkulacka.Form1.Power3 [private]
```

6.2.3.46 powerX

```
System.Windows.Forms.Button Kalkulacka.Form1.powerX [private]
```

6.2.3.47 PowerXMinus1

```
System.Windows.Forms.Button Kalkulacka.Form1.PowerXMinus1 [private]
```

6.2.3.48 RAND

```
System.Windows.Forms.Button Kalkulacka.Form1.RAND [private]
```

6.2.3.49 repeatEq

```
bool Kalkulacka.Form1.repeatEq = false [private]
```

6.2.3.50 root

```
System.Windows.Forms.Button Kalkulacka.Form1.root [private]
```

6.2.3.51 root2

```
System.Windows.Forms.Button Kalkulacka.Form1.root2 [private]
```

6.2.3.52 root3

```
System.Windows.Forms.Button Kalkulacka.Form1.root3 [private]
```

6.2.3.53 secondNum

```
decimal Kalkulacka.Form1.secondNum = 0 [private]
```

6.2.3.54 shift

```
System.Windows.Forms.Button Kalkulacka.Form1.shift [private]
```

6.2.3.55 shiftClicked

```
bool Kalkulacka.Form1.shiftClicked = false [private]
```

6.2.3.56 shiftClickedPanel

```
System.Windows.Forms.Panel Kalkulacka.Form1.shiftClickedPanel [private]
```

6.2.3.57 shiftUnclickedPanel

```
System.Windows.Forms.Panel Kalkulacka.Form1.shiftUnclickedPanel [private]
```

6.2.3.58 sin

```
System.Windows.Forms.Button Kalkulacka.Form1.sin [private]
```

6.2.3.59 subtraction

```
System.Windows.Forms.Button Kalkulacka.Form1.subtraction [private]
```

6.2.3.60 tan

```
System.Windows.Forms.Button Kalkulacka.Form1.tan [private]
```

6.2.3.61 textBox1

```
System.Windows.Forms.TextBox Kalkulacka.Form1.textBox1 [private]
```

The documentation for this class was generated from the following files:

- Kalkulacka/[Form1.cs](#)
- Kalkulacka/[Form1.Designer.cs](#)

6.3 MathComponentsNS.MathComponents Class Reference

Private Member Functions

- decimal [TruncateToFit](#) (([bool](#), decimal) a)
- decimal [Add](#) (decimal a, decimal b)
- decimal [Subtract](#) (decimal a, decimal b)
- decimal [Multiply](#) (decimal a, decimal b)
- decimal [Divide](#) (decimal a, decimal b)
- decimal [Exponentiate](#) (decimal b, decimal e)
- decimal [Root](#) (decimal d, decimal r)
- decimal [Logarithm](#) (decimal a, decimal b)
- decimal [Sin](#) (decimal a)
- decimal [Cos](#) (decimal a)
- decimal [Tan](#) (decimal a)
- decimal [Arcsin](#) (decimal a)
- decimal [Arccos](#) (decimal a)
- decimal [Arctan](#) (decimal a)
- decimal [Factorial](#) (decimal a)
- decimal [UnconstrainedFactorial](#) (decimal a)
- decimal [Random](#) ()

- decimal [TruncateToFit](#) (([bool](#), decimal) a)
- decimal [Add](#) (decimal a, decimal b)
- decimal [Subtract](#) (decimal a, decimal b)
- decimal [Multiply](#) (decimal a, decimal b)
- decimal [Divide](#) (decimal a, decimal b)
- decimal [Exponentiate](#) (decimal b, decimal e)
- decimal [Root](#) (decimal d, decimal r)
- decimal [Logarithm](#) (decimal a, decimal b)
- decimal [Sin](#) (decimal a)
- decimal [Cos](#) (decimal a)
- decimal [Tan](#) (decimal a)
- decimal [Arcsin](#) (decimal a)
- decimal [Arccos](#) (decimal a)
- decimal [Arctan](#) (decimal a)
- decimal [Factorial](#) (decimal a)
- decimal [UnconstrainedFactorial](#) (decimal a)
- decimal [Random](#) ()

Private Attributes

- [bool](#)
truncates result to fit calc screen if less than 9 whole, leave all whole and truncate decimal to sum up to 9 max
- decimal [error](#) = (true, 0)
- decimal [constPI](#) = (false, (decimal)Math.PI)
- decimal [constE](#) = (false, (decimal)Math.E)

6.3.1 Member Function Documentation

6.3.1.1 Add() [1/2]

```
decimal MathComponentsNS.MathComponents.Add (
    decimal a,
    decimal b ) [inline], [private]
```

6.3.1.2 Add() [2/2]

```
decimal MathComponentsNS.MathComponents.Add (
    decimal a,
    decimal b ) [inline], [private]
```

6.3.1.3 Arccos() [1/2]

```
decimal MathComponentsNS.MathComponents.Arccos (  
    decimal a ) [inline], [private]
```

6.3.1.4 Arccos() [2/2]

```
decimal MathComponentsNS.MathComponents.Arccos (  
    decimal a ) [inline], [private]
```

6.3.1.5 Arcsin() [1/2]

```
decimal MathComponentsNS.MathComponents.Arcsin (  
    decimal a ) [inline], [private]
```

6.3.1.6 Arcsin() [2/2]

```
decimal MathComponentsNS.MathComponents.Arcsin (  
    decimal a ) [inline], [private]
```

6.3.1.7 Arctan() [1/2]

```
decimal MathComponentsNS.MathComponents.Arctan (  
    decimal a ) [inline], [private]
```

6.3.1.8 Arctan() [2/2]

```
decimal MathComponentsNS.MathComponents.Arctan (  
    decimal a ) [inline], [private]
```

6.3.1.9 Cos() [1/2]

```
decimal MathComponentsNS.MathComponents.Cos (  
    decimal a ) [inline], [private]
```

6.3.1.10 Cos() [2/2]

```
decimal MathComponentsNS.MathComponents.Cos (  
    decimal a ) [inline], [private]
```

6.3.1.11 Divide() [1/2]

```
decimal MathComponentsNS.MathComponents.Divide (  
    decimal a,  
    decimal b ) [inline], [private]
```

6.3.1.12 Divide() [2/2]

```
decimal MathComponentsNS.MathComponents.Divide (  
    decimal a,  
    decimal b ) [inline], [private]
```

6.3.1.13 Exponentiate() [1/2]

```
decimal MathComponentsNS.MathComponents.Exponentiate (  
    decimal b,  
    decimal e ) [inline], [private]
```

6.3.1.14 Exponentiate() [2/2]

```
decimal MathComponentsNS.MathComponents.Exponentiate (  
    decimal b,  
    decimal e ) [inline], [private]
```

6.3.1.15 Factorial() [1/2]

```
decimal MathComponentsNS.MathComponents.Factorial (  
    decimal a ) [inline], [private]
```

6.3.1.16 Factorial() [2/2]

```
decimal MathComponentsNS.MathComponents.Factorial (  
    decimal a ) [inline], [private]
```

6.3.1.17 Logarithm() [1/2]

```
decimal MathComponentsNS.MathComponents.Logarithm (  
    decimal a,  
    decimal b ) [inline], [private]
```

6.3.1.18 Logarithm() [2/2]

```
decimal MathComponentsNS.MathComponents.Logarithm (  
    decimal a,  
    decimal b ) [inline], [private]
```

6.3.1.19 Multiply() [1/2]

```
decimal MathComponentsNS.MathComponents.Multiply (  
    decimal a,  
    decimal b ) [inline], [private]
```

6.3.1.20 Multiply() [2/2]

```
decimal MathComponentsNS.MathComponents.Multiply (  
    decimal a,  
    decimal b ) [inline], [private]
```

6.3.1.21 Random() [1/2]

```
decimal MathComponentsNS.MathComponents.Random ( ) [inline], [private]
```


6.3.1.22 Random() [2/2]

```
decimal MathComponentsNS.MathComponents.Random ( ) [inline], [private]
```

6.3.1.23 Root() [1/2]

```
decimal MathComponentsNS.MathComponents.Root (
    decimal d,
    decimal r ) [inline], [private]
```

6.3.1.24 Root() [2/2]

```
decimal MathComponentsNS.MathComponents.Root (
    decimal d,
    decimal r ) [inline], [private]
```

6.3.1.25 Sin() [1/2]

```
decimal MathComponentsNS.MathComponents.Sin (
    decimal a ) [inline], [private]
```

6.3.1.26 Sin() [2/2]

```
decimal MathComponentsNS.MathComponents.Sin (
    decimal a ) [inline], [private]
```

6.3.1.27 Subtract() [1/2]

```
decimal MathComponentsNS.MathComponents.Subtract (
    decimal a,
    decimal b ) [inline], [private]
```

6.3.1.28 Subtract() [2/2]

```
decimal MathComponentsNS.MathComponents.Subtract (  
    decimal a,  
    decimal b ) [inline], [private]
```

6.3.1.29 Tan() [1/2]

```
decimal MathComponentsNS.MathComponents.Tan (  
    decimal a ) [inline], [private]
```

6.3.1.30 Tan() [2/2]

```
decimal MathComponentsNS.MathComponents.Tan (  
    decimal a ) [inline], [private]
```

6.3.1.31 TruncateToFit() [1/2]

```
decimal MathComponentsNS.MathComponents.TruncateToFit (  
    (bool, decimal) a ) [inline], [private]
```

6.3.1.32 TruncateToFit() [2/2]

```
decimal MathComponentsNS.MathComponents.TruncateToFit (  
    (bool, decimal) a ) [inline], [private]
```

6.3.1.33 UnconstrainedFactorial() [1/2]

```
decimal MathComponentsNS.MathComponents.UnconstrainedFactorial (  
    decimal a ) [inline], [private]
```

6.3.1.34 UnconstrainedFactorial() [2/2]

```
decimal MathComponentsNS.MathComponents.UnconstrainedFactorial (  
    decimal a ) [inline], [private]
```

6.3.2 Member Data Documentation

6.3.2.1 bool

MathComponentsNS.MathComponents.bool [private]

truncates result to fit calc screen if less than 9 whole, leave all whole and truncate decimal to sum up to 9 max

Function of random number generates random decimal number between 0 inclusive to 1 exclusive.

Factorial operation function without upper limit helper function, don't use in calculator.

Factorial operation function.

Function arctan.

Function arccos.

Function arcsin.

Function tangent.

Function cosine using Taylor series algorithm $\cos x = 1 - x^2/2! + x^4/4! - x^6/6! + \dots$

sine function using Taylor series algorithm $\sin x = x - x^3/3! + x^5/5! - x^7/7! + \dots$

Logarithm function expect log-argument positive expect base positive and different from 1.

Funtion of root to ath.

Division operation function.

Multiplication operation function.

Subtraction operation function.

Addition operation function.

Returns

error/scientific notation if more than 9 whole places (?)

Parameters

in	<i>decimal</i>	first addend (a)
in	<i>decimal</i>	second addend (b)

Returns

sum (result of a + b)

Parameters

in	<i>decimal</i>	minuend (a)
in	<i>decimal</i>	subtrahend (b)

Returns

difference (result of $a - b$)

Parameters

in	<i>decimal</i>	first factor (a)
in	<i>decimal</i>	second factor (b)

Returns

product (result of $a * b$)

Parameters

in	<i>decimal</i>	dividend (a)
in	<i>decimal</i>	divisor (b)

Returns

quotient (result of a / b)

error if divisor is zero

non-integer exponent or base expect error (?)

Parameters

in	<i>decimal</i>	base (b)
in	<i>decimal</i>	exponent (e)

Returns

result of b^e

error if 0^0 or 0^{-1}

Parameters

in	<i>decimal</i>	degree d
in	<i>decimal</i>	radicand r

Returns

ath root of b
error if negative radicant

Parameters

in	<i>decimal</i>	argument (a)
in	<i>decimal</i>	base (b)

Returns

log of a with base of b

Parameters

in	<i>decimal</i>	a
----	----------------	---

Returns

result with 5 decimal places precision

Parameters

in	<i>decimal</i>	number a
----	----------------	----------

Returns

result with 5 decimal places precision (?)

Parameters

in	<i>decimal</i>	number a $\tan x = \sin x / \cos x$
----	----------------	-------------------------------------

Returns

result with 5 decimal places precision (?)

Parameters

in	<i>decimal</i>	number a
----	----------------	----------

Returns

result with 5 decimal places precision (?) expect value between $-\pi/2$ and $\pi/2$

Parameters

in	<i>decimal</i>	number a
----	----------------	----------

Returns

result with 5 decimal places precision (?) expect value between -1 and 1

Parameters

in	<i>decimal</i>	number a expect number non-negative integer not greater than 12
----	----------------	---

Returns

error if a is negative integer

error if a is greater than 12

error if a has decimal point

Parameters

in	<i>decimal</i>	number a expect number non-negative integer
----	----------------	---

Returns

error if a is negative integer

error if a has decimal point

6.3.2.2 constE

```
decimal MathComponentsNS.MathComponents.constE = (false, (decimal)Math.E) [private]
```

6.3.2.3 constPI

```
decimal MathComponentsNS.MathComponents.constPI = (false, (decimal)Math.PI) [private]
```

6.3.2.4 error

```
decimal MathComponentsNS.MathComponents.error = (true, 0) [private]
```

The documentation for this class was generated from the following file:

- Kalkulacka/[Math.cs](#)

6.4 Kalkulacka.Program Class Reference

Static Private Member Functions

- static void [Main](#) ()
The main entry point for the application.

6.4.1 Member Function Documentation

6.4.1.1 Main()

```
static void Kalkulacka.Program.Main ( ) [inline], [static], [private]
```

The main entry point for the application.

The documentation for this class was generated from the following file:

- Kalkulacka/[Program.cs](#)

6.5 Profiling.Program Class Reference

Static Private Member Functions

- static int [Main](#) (string[] args)

6.5.1 Member Function Documentation

6.5.1.1 Main()

```
static int Profiling.Program.Main (  
    string[] args ) [inline], [static], [private]
```

The documentation for this class was generated from the following file:

- Profiling/[Program.cs](#)

Chapter 7

File Documentation

7.1 Kalkulacka/Form1.cs File Reference

File responsible for handling calculator UI and integrating functions from math lib.

Classes

- class [Kalkulacka.Form1](#)

Namespaces

- namespace [Kalkulacka](#)

7.1.1 Detailed Description

File responsible for handling calculator UI and integrating functions from math lib.

7.2 Kalkulacka/Form1.Designer.cs File Reference

Classes

- class [Kalkulacka.Form1](#)

Namespaces

- namespace [Kalkulacka](#)

7.3 Kalkulacka/Math.cs File Reference

File responsible for implementing math operations and constants all functions return (bool, decimal) tuple where first operand is set to true if there is an error (e.g. out of bounds, division by zero), second is result.

Classes

- class [MathComponentsNS.MathComponents](#)

Namespaces

- namespace [MathComponentsNS](#)

7.3.1 Detailed Description

File responsible for implementing math operations and constants all functions return (bool, decimal) tuple where first operand is set to true if there is an error (e.g. out of bounds, division by zero), second is result.

7.4 Profiling/Math.cs File Reference

File responsible for implementing math operations and constants all functions return (bool, decimal) tuple where first operand is set to true if there is an error (e.g. out of bounds, division by zero), second is result.

Classes

- class [MathComponentsNS.MathComponents](#)

Namespaces

- namespace [MathComponentsNS](#)

7.4.1 Detailed Description

File responsible for implementing math operations and constants all functions return (bool, decimal) tuple where first operand is set to true if there is an error (e.g. out of bounds, division by zero), second is result.

7.5 Kalkulacka/Program.cs File Reference

Classes

- class [Kalkulacka.Program](#)

Namespaces

- namespace [Kalkulacka](#)

7.6 Profiling/Program.cs File Reference

Classes

- class [Profiling.Program](#)

Namespaces

- namespace [Profiling](#)

7.7 Kalkulacka/Properties/AssemblyInfo.cs File Reference

7.8 Profiling/Properties/AssemblyInfo.cs File Reference

7.9 Kalkulacka/Properties/Resources.Designer.cs File Reference

Classes

- class **Kalkulacka.Properties.Resources**
A strongly-typed resource class, for looking up localized strings, etc.

Namespaces

- namespace [Kalkulacka](#)
- namespace [Kalkulacka.Properties](#)

7.10 Kalkulacka/Properties/Settings.Designer.cs File Reference

Classes

- class **Kalkulacka.Properties.Settings**

Namespaces

- namespace [Kalkulacka](#)
- namespace [Kalkulacka.Properties](#)

7.11 MathTest/BasicMathTests.cs File Reference

Classes

- class [MathTest.BasicMathTests](#)

Namespaces

- namespace [MathTest](#)

7.12 **MathTest/obj/Debug/netcoreapp3.1/MathTest.AssemblyInfo.cs File Reference**

7.13 **MathTest/obj/Release/netcoreapp3.1/MathTest.AssemblyInfo.cs File Reference**

7.14 **MathTest/obj/x64/Release/netcoreapp3.1/MathTest.AssemblyInfo.cs File Reference**

Index

- AC
 - Kalkulacka.Form1, [20](#)
- Add
 - MathComponentsNS.MathComponents, [29](#)
- addition
 - Kalkulacka.Form1, [20](#)
- ANS
 - Kalkulacka.Form1, [20](#)
- ans
 - Kalkulacka.Form1, [20](#)
- Arccos
 - MathComponentsNS.MathComponents, [29](#), [30](#)
- arccos
 - Kalkulacka.Form1, [21](#)
- Arcsin
 - MathComponentsNS.MathComponents, [30](#)
- arcsin
 - Kalkulacka.Form1, [21](#)
- Arctan
 - MathComponentsNS.MathComponents, [30](#)
- arctan
 - Kalkulacka.Form1, [21](#)
- bool
 - Kalkulacka.Form1, [21](#)
 - MathComponentsNS.MathComponents, [35](#)
- Calculate
 - Kalkulacka.Form1, [16](#)
- Clear
 - Kalkulacka.Form1, [16](#)
- components
 - Kalkulacka.Form1, [21](#)
- constE
 - MathComponentsNS.MathComponents, [38](#)
- constPI
 - MathComponentsNS.MathComponents, [38](#)
- Cos
 - MathComponentsNS.MathComponents, [30](#)
- cos
 - Kalkulacka.Form1, [21](#)
- decPoint
 - Kalkulacka.Form1, [21](#)
- decPoint_Click
 - Kalkulacka.Form1, [17](#)
- del
 - Kalkulacka.Form1, [22](#)
- DisplayedM
 - Kalkulacka.Form1, [22](#)
- Dispose
 - Kalkulacka.Form1, [17](#)
- Divide
 - MathComponentsNS.MathComponents, [31](#)
- division
 - Kalkulacka.Form1, [22](#)
- equals
 - Kalkulacka.Form1, [22](#)
- erase
 - Kalkulacka.Form1, [22](#)
- error
 - MathComponentsNS.MathComponents, [38](#)
- euler
 - Kalkulacka.Form1, [22](#)
- Exponentiate
 - MathComponentsNS.MathComponents, [31](#)
- Factorial
 - MathComponentsNS.MathComponents, [31](#)
- factorial
 - Kalkulacka.Form1, [22](#)
- firstNum
 - Kalkulacka.Form1, [22](#)
- Form1
 - Kalkulacka.Form1, [16](#)
- Form1_Load
 - Kalkulacka.Form1, [17](#)
- InitializeComponent
 - Kalkulacka.Form1, [17](#)
- InstantOp_Click
 - Kalkulacka.Form1, [17](#)
- Kalkulacka, [9](#)
- Kalkulacka.Form1, [14](#)
 - AC, [20](#)
 - addition, [20](#)
 - ANS, [20](#)
 - ans, [20](#)
 - arccos, [21](#)
 - arcsin, [21](#)
 - arctan, [21](#)
 - bool, [21](#)
 - Calculate, [16](#)
 - Clear, [16](#)
 - components, [21](#)
 - cos, [21](#)
 - decPoint, [21](#)
 - decPoint_Click, [17](#)

- del, [22](#)
- DisplayedM, [22](#)
- Dispose, [17](#)
- division, [22](#)
- equals, [22](#)
- erase, [22](#)
- euler, [22](#)
- factorial, [22](#)
- firstNum, [22](#)
- Form1, [16](#)
- Form1_Load, [17](#)
- InitializeComponent, [17](#)
- InstantOp_Click, [17](#)
- length, [18](#)
- listPanel, [23](#)
- In, [23](#)
- log, [23](#)
- logDec, [23](#)
- MEM, [23](#)
- Mminus, [23](#)
- Mminus_Click, [18](#)
- Mplus, [23](#)
- Mplus_Click, [18](#)
- MRC, [23](#)
- MRC_Click, [18](#)
- multiplication, [24](#)
- multiplication10, [24](#)
- newMath, [24](#)
- num0, [24](#)
- num1, [24](#)
- num2, [24](#)
- num3, [24](#)
- num4, [25](#)
- num5, [25](#)
- num6, [25](#)
- num7, [25](#)
- num8, [25](#)
- num9, [25](#)
- Number_click, [18](#)
- off, [25](#)
- off_Click, [19](#)
- operation_Click, [19](#)
- operationPerformed, [25](#)
- pi, [26](#)
- Power2, [26](#)
- Power3, [26](#)
- powerX, [26](#)
- PowerXMinus1, [26](#)
- RAND, [26](#)
- repeatEq, [26](#)
- root, [26](#)
- root2, [27](#)
- root3, [27](#)
- secondNum, [27](#)
- shift, [27](#)
- shift_Click, [19](#)
- shiftClicked, [27](#)
- shiftClickedPanel, [27](#)
- shiftUnclickedPanel, [27](#)
- sin, [27](#)
- subtraction, [28](#)
- subtraction_Click, [19](#)
- tan, [28](#)
- textBox1, [28](#)
- textBox1_KeyPress, [19](#)
- Valid_Chk, [20](#)
- ZeroClear, [20](#)
- Kalkulacka.Program, [39](#)
- Main, [39](#)
- Kalkulacka.Properties, [9](#)
- Kalkulacka/Form1.cs, [41](#)
- Kalkulacka/Form1.Designer.cs, [41](#)
- Kalkulacka/Math.cs, [41](#)
- Kalkulacka/Program.cs, [42](#)
- Kalkulacka/Properties/AssemblyInfo.cs, [43](#)
- Kalkulacka/Properties/Resources.Designer.cs, [43](#)
- Kalkulacka/Properties/Settings.Designer.cs, [43](#)
- length
 - Kalkulacka.Form1, [18](#)
- listPanel
 - Kalkulacka.Form1, [23](#)
- In
 - Kalkulacka.Form1, [23](#)
- log
 - Kalkulacka.Form1, [23](#)
- Logarithm
 - MathComponentsNS.MathComponents, [32](#)
- logDec
 - Kalkulacka.Form1, [23](#)
- Main
 - Kalkulacka.Program, [39](#)
 - Profiling.Program, [39](#)
- MathComponentsNS, [9](#)
- MathComponentsNS.MathComponents, [28](#)
- Add, [29](#)
- Arccos, [29, 30](#)
- Arcsin, [30](#)
- Arctan, [30](#)
- bool, [35](#)
- constE, [38](#)
- constPI, [38](#)
- Cos, [30](#)
- Divide, [31](#)
- error, [38](#)
- Exponentiate, [31](#)
- Factorial, [31](#)
- Logarithm, [32](#)
- Multiply, [32](#)
- Random, [32](#)
- Root, [33](#)
- Sin, [33](#)
- Subtract, [33](#)
- Tan, [34](#)
- TruncateToFit, [34](#)
- UnconstrainedFactorial, [34](#)

- MathTest, [9](#)
- MathTest.BasicMathTests, [11](#)
 - RoundOff, [11](#)
 - TestAddition, [11](#)
 - TestArccos, [12](#)
 - TestArcsin, [12](#)
 - TestArctan, [12](#)
 - TestCos, [12](#)
 - TestDivision, [12](#)
 - TestExponentiation, [12](#)
 - TestFactorial, [12](#)
 - TestLogarithm, [12](#)
 - TestMultiplication, [13](#)
 - TestRandom, [13](#)
 - TestRoot, [13](#)
 - TestSin, [13](#)
 - TestSubtraction, [13](#)
 - TestTan, [13](#)
- MathTest/BasicMathTests.cs, [43](#)
- MathTest/obj/Debug/netcoreapp3.1/MathTest.AssemblyInfo.cs, [25](#)
[44](#)
- MathTest/obj/Release/netcoreapp3.1/MathTest.AssemblyInfo.cs, [26](#)
[44](#)
- MathTest/obj/x64/Release/netcoreapp3.1/MathTest.AssemblyInfo.cs, [26](#)
[44](#)
- MEM
 - Kalkulacka.Form1, [23](#)
- Mminus
 - Kalkulacka.Form1, [23](#)
- Mminus_Click
 - Kalkulacka.Form1, [18](#)
- Mplus
 - Kalkulacka.Form1, [23](#)
- Mplus_Click
 - Kalkulacka.Form1, [18](#)
- MRC
 - Kalkulacka.Form1, [23](#)
- MRC_Click
 - Kalkulacka.Form1, [18](#)
- multiplication
 - Kalkulacka.Form1, [24](#)
- multiplication10
 - Kalkulacka.Form1, [24](#)
- Multiply
 - MathComponentsNS.MathComponents, [32](#)
- newMath
 - Kalkulacka.Form1, [24](#)
- num0
 - Kalkulacka.Form1, [24](#)
- num1
 - Kalkulacka.Form1, [24](#)
- num2
 - Kalkulacka.Form1, [24](#)
- num3
 - Kalkulacka.Form1, [24](#)
- num4
 - Kalkulacka.Form1, [25](#)
- num5
 - Kalkulacka.Form1, [25](#)
- num6
 - Kalkulacka.Form1, [25](#)
- num7
 - Kalkulacka.Form1, [25](#)
- num8
 - Kalkulacka.Form1, [25](#)
- num9
 - Kalkulacka.Form1, [25](#)
- Number_click
 - Kalkulacka.Form1, [18](#)
- off
 - Kalkulacka.Form1, [25](#)
- off_Click
 - Kalkulacka.Form1, [19](#)
- operation_Click
 - Kalkulacka.Form1, [19](#)
- operationPerformed
 - Kalkulacka.Form1, [25](#)
- Power2
 - Kalkulacka.Form1, [26](#)
- Power3
 - Kalkulacka.Form1, [26](#)
- powerX
 - Kalkulacka.Form1, [26](#)
- PowerXMinus1
 - Kalkulacka.Form1, [26](#)
- Profiling, [9](#)
- Profiling.Program, [39](#)
 - Main, [39](#)
- Profiling/Math.cs, [42](#)
- Profiling/Program.cs, [43](#)
- Profiling/Properties/AssemblyInfo.cs, [43](#)
- RAND
 - Kalkulacka.Form1, [26](#)
- Random
 - MathComponentsNS.MathComponents, [32](#)
- repeatEq
 - Kalkulacka.Form1, [26](#)
- Root
 - MathComponentsNS.MathComponents, [33](#)
- root
 - Kalkulacka.Form1, [26](#)
- root2
 - Kalkulacka.Form1, [27](#)
- root3
 - Kalkulacka.Form1, [27](#)
- RoundOff
 - MathTest.BasicMathTests, [11](#)
- secondNum
 - Kalkulacka.Form1, [27](#)
- shift
 - Kalkulacka.Form1, [27](#)

- shift_Click
 - Kalkulacka.Form1, 19
- shiftClicked
 - Kalkulacka.Form1, 27
- shiftClickedPanel
 - Kalkulacka.Form1, 27
- shiftUnclickedPanel
 - Kalkulacka.Form1, 27
- Sin
 - MathComponentsNS.MathComponents, 33
- sin
 - Kalkulacka.Form1, 27
- Subtract
 - MathComponentsNS.MathComponents, 33
- subtraction
 - Kalkulacka.Form1, 28
- subtraction_Click
 - Kalkulacka.Form1, 19
- Tan
 - MathComponentsNS.MathComponents, 34
- tan
 - Kalkulacka.Form1, 28
- TestAddition
 - MathTest.BasicMathTests, 11
- TestArccos
 - MathTest.BasicMathTests, 12
- TestArcsin
 - MathTest.BasicMathTests, 12
- TestArctan
 - MathTest.BasicMathTests, 12
- TestCos
 - MathTest.BasicMathTests, 12
- TestDivision
 - MathTest.BasicMathTests, 12
- TestExponentiation
 - MathTest.BasicMathTests, 12
- TestFactorial
 - MathTest.BasicMathTests, 12
- TestLogarithm
 - MathTest.BasicMathTests, 12
- TestMultiplication
 - MathTest.BasicMathTests, 13
- TestRandom
 - MathTest.BasicMathTests, 13
- TestRoot
 - MathTest.BasicMathTests, 13
- TestSin
 - MathTest.BasicMathTests, 13
- TestSubtraction
 - MathTest.BasicMathTests, 13
- TestTan
 - MathTest.BasicMathTests, 13
- textBox1
 - Kalkulacka.Form1, 28
- textBox1_KeyPress
 - Kalkulacka.Form1, 19
- TruncateToFit
 - MathComponentsNS.MathComponents, 34
- UnconstrainedFactorial
 - MathComponentsNS.MathComponents, 34
- Valid_Chk
 - Kalkulacka.Form1, 20
- ZeroClear
 - Kalkulacka.Form1, 20