

İđĩãđàììèđĩâàíèå èèíåéíûõ âû÷èñèèòåëüíûõ ïđĩöãññĩâ

Äàîî âûđàæåíèå $(2^{-x} \cdot \text{atan}(x + a) - 3^{-x \cdot b}) \cdot \cos(x + b)$

Äëÿ ñèääópùèõ çíà÷áíèé

$$a := -0.5$$

$$b := 1.2$$

x - ëpáíå äĩíóñòèíå ÷èñèî

$$f(x) := \begin{cases} a \leftarrow 0.5 \\ b \leftarrow 1.2 \\ (2^{-x} \cdot \text{atan}(x + a) - 3^{-x \cdot b}) \cdot \cos(x + b) \end{cases}$$

$$f(5) = 0.042$$

$$f(0.6) = -0.022$$

İđîãðàììèđîãàíèå ðàçàãòâëÿïùèõñÿ âú÷èññèèòâëüíúõ ïđîãññîã

$$a = 9876.5$$

$$b = 34.58$$

x - ëðáíã äñîñòèìã ÷èñî

$$y(x) := \begin{cases} a \leftarrow 9876.5 \\ b \leftarrow 34.58 \\ e^{\sin(x)} + b \cdot \sqrt{|2 \cdot \cos(6 \cdot x - 0.3)|} & \text{if } b^2 > a \cdot x \\ e^{-x} + \sqrt{\tan(|3 \cdot x + 0.6|)} & \text{if } (b^2 \leq a \cdot x) \end{cases}$$

$$y(-7.5) = 24.863$$

$$y(0.3) = 4.496$$

$$y(-8.45) = 42.567$$

$$y(0.659) = 0.517 + 0.796i$$

$$y(-\log(\sqrt{3})) = 20.344$$

Άσκηση 2

$$a = 9876.5$$

$$b = 34.58$$

x - επάλλα αρίθμησις ÷ εἴδη

$$y(x) := \begin{cases} a \leftarrow 9876.5 \\ b \leftarrow 34.58 \\ e^{\sin(x)} + b \cdot \sqrt{|2 \cdot \cos(6 \cdot x - 0.3)|} & \text{if } b^2 > a \cdot x \\ e^{-x} + \sqrt{\tan(|3 \cdot x + 0.6|)} & \text{otherwise} \end{cases}$$

$$y(-7.5) = 24.863$$

$$y(0.3) = 4.496$$

$$y(-8.45) = 42.567$$

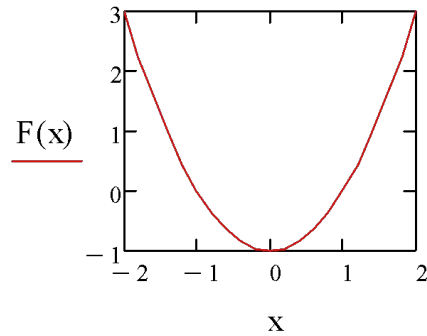
$$y(0.659) = 0.517 + 0.796i$$

$$y(-\log(\sqrt{3})) = 20.344$$

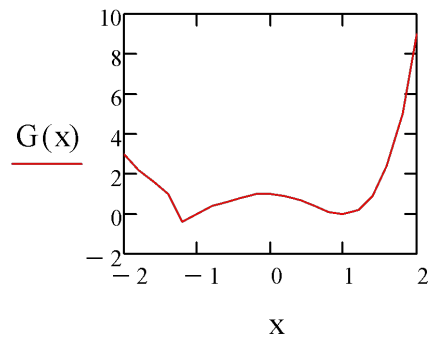
Òðåòèé ààðèàíò

$$x := -2, -1.8.. 2$$

$$\underline{F(x)} := x^2 - 1$$



$$\underline{G(x)} := \begin{cases} F(x) & \text{if } -2 \leq x < -1.3 \\ -F(x) & \text{if } -1.3 \leq x < 0 \\ F(x)^2 & \text{if } 0 \leq x \leq 2 \\ x & \text{otherwise} \end{cases}$$



$$G(-1.4) = 0.96$$

$$G(1) = 0$$

$$G(0) = 1$$

Άλλη περίπτωση: $x^2 + 2$ αν $x \geq 0$ και $x < 2$

$\sin(x + 1)$ αν $x \geq 2$ και $x < 5$
0 αλλιώς

$$y(x) := \begin{cases} x^2 + 2 & \text{if } (x \geq 0) \wedge (x < 2) \\ \sin(x + 1) & \text{if } (x \geq 2) \wedge (x < 5) \\ 0 & \text{otherwise} \end{cases}$$

$$y(6) = 0$$

$$y(1) = 3$$

$$y(-4) = 0$$

$$y(3) = -0.757$$

İđîãðàììèđîãàíèã òèèèè÷ãñèèõ âú÷èñèèòãëüíúõ iđîãññîã

Äàíà óóíèöèÿ $x + \sin(x) - \cos((x \cdot y))$

Äàíú çíà÷áíèÿ $y = 0.5$
 $x = 0..7$
 $d = 0.2$

```
from_tab(x1,x2,d) := | i ← 1
                    | y ← 0.5
                    | for x ∈ x1,x1 + d.. x2
                    |   | z ← x + sin(x) - cos(x·y)
                    |   | si ← z
                    |   | i ← i + 1
                    | s
```

J := from_tab(0,4,0.2)

$$J^T =$$

	0	1	2	3	4	5	6	7	8	9
0	0	-0.596	1.190	2.095	3.164	4.307	5.621	...		


```
from(x1,x2,d) := | i ← 1  
                 | y ← 0.5  
                 | for x ∈ x1,x1 + d.. x2  
                 |   | z ← x + sin(x) - cos(x·y)  
                 |   | si ← z  
                 |   | i ← i + 1  
                 | s
```

