

Equations solving

This will show input info.

1. **Function must start with 'f(x) = '**
2. **Supported Functions:**
 - `Math.pow(x,2) => x^2`
 - ...
 - `Math.sin(x) => sin(x)`
 - `Math.cos(x) => cos(x)`
 - `tg(x) => tan(x,2)`
 - `ch(x) => cosh(x,2)`
 - `sh(x) => sinh(x,2)`
 - ...
 - `ln(x) => log(x)`
 - `Math.log2(x) => log(x,2)`
 - ...
 - `|x| => abs(x)`
3. **Supported Constants:**
 - `Math.E => e`
 - `Math.Pi => pi`
4. **Supported localization values:**
 - numbers
 - +/- Pi
5. **Minimal accuracy value is 1E-10**

Function

$$f(x) = \log(1+x^2) - (\sin(x))^3 + x - (1+(\cos(x))^3)^{1/2}$$

Method

2) Newton's Method ▼

Start Point

0.1

End Point

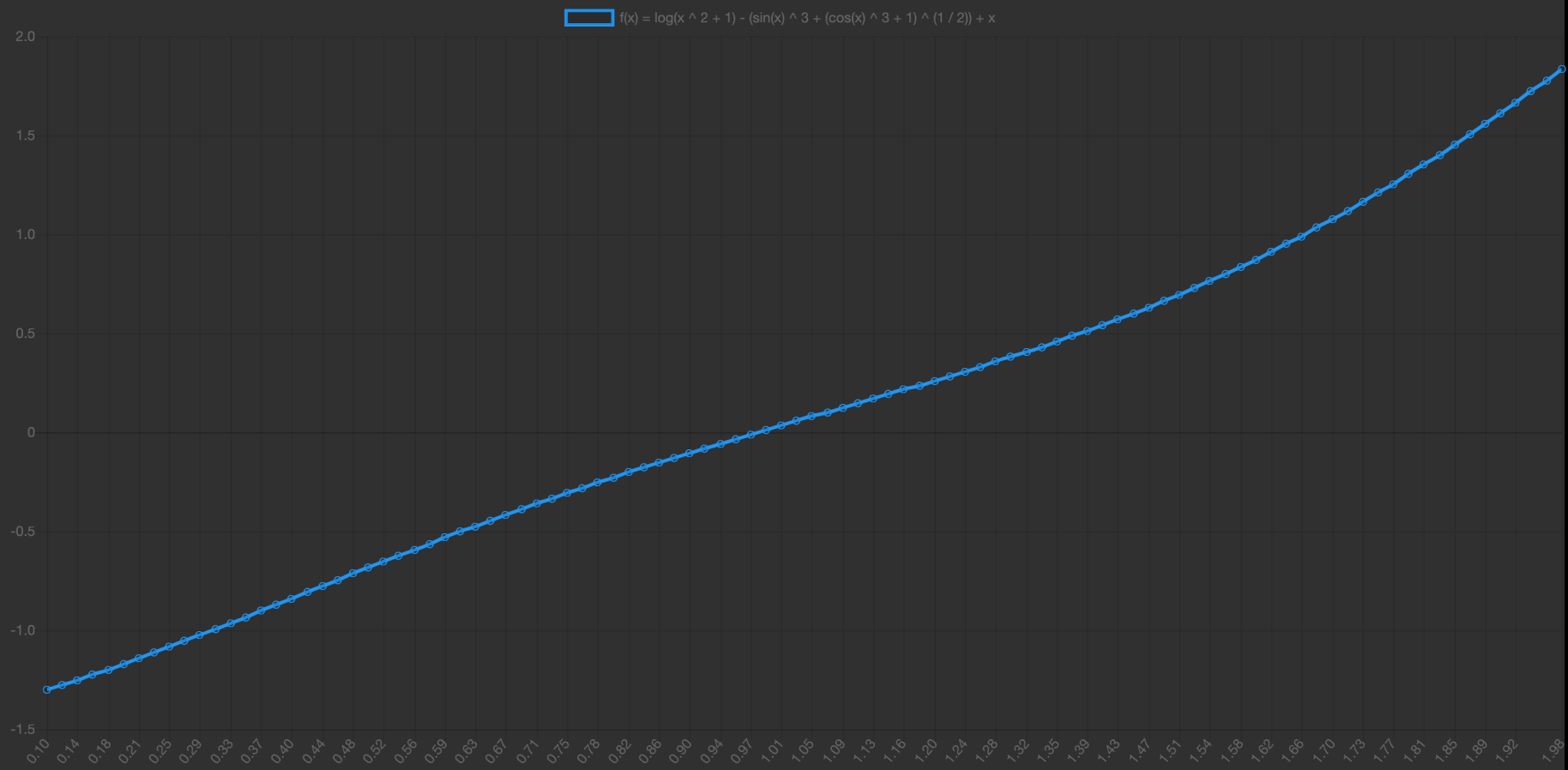
2

Accuracy

0.01

CALCULATE

Start Step



Function: $f(x) = \log(x^2 + 1) - (\sin(x)^3 + (\cos(x)^3 + 1)^{1/2}) + x$

First Derivative: $f'(x) = x^2 / (x^2 + 1) - (3 * \cos(x) * \sin(x)^2 + \sin(x) * -3/2 * \cos(x)^2 * (\cos(x)^3 + 1)^{-1/2}) + 1$

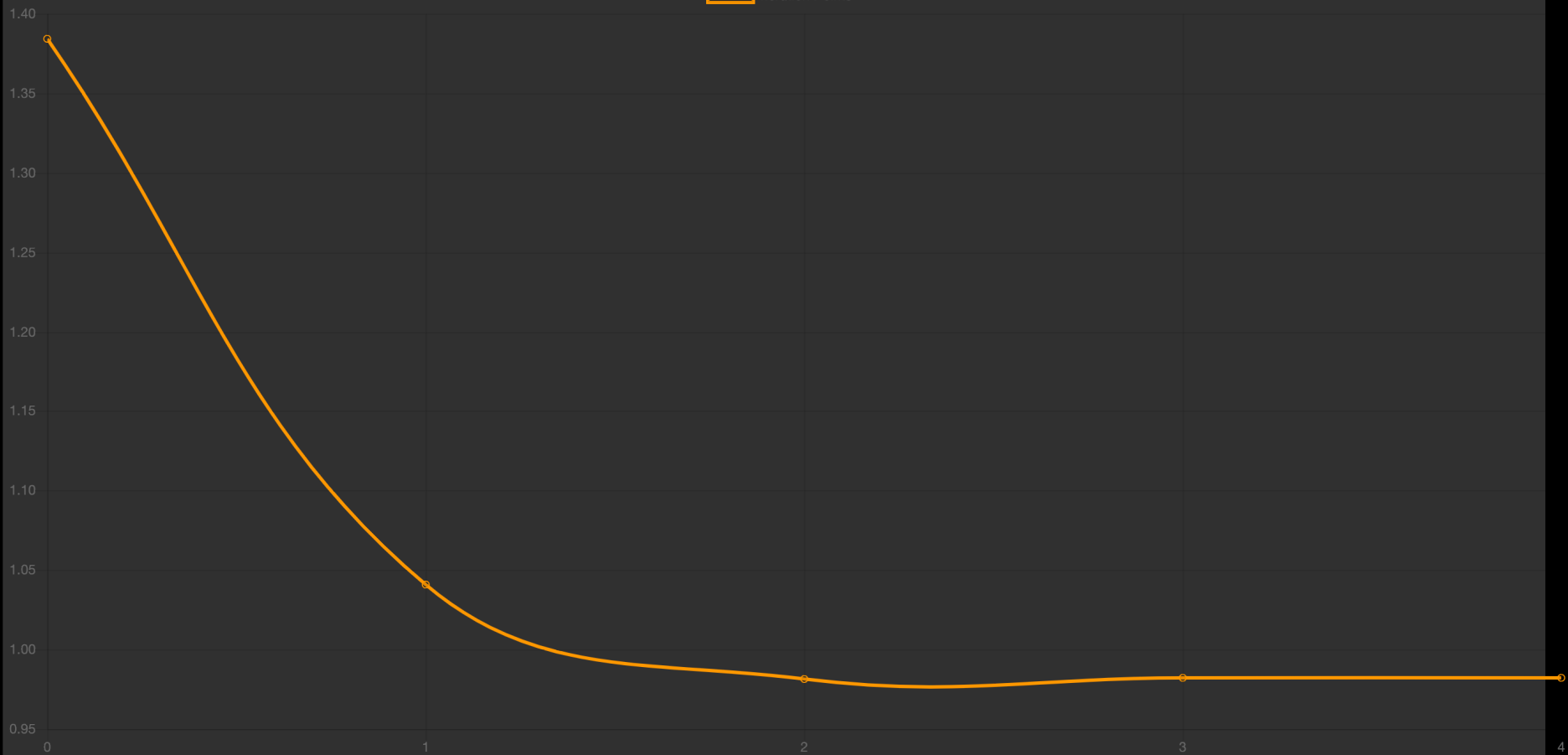
Alpha: 1.2734960454908348

Start Value: 2

Exit Criterion Value: 1.2734960454908348e-10

Iterations

Iteration Points



#i	$x(i-1)$	$x(i)$	$ x(i)-x(i-1) $
1	2	1.3844508087260614	0.6155491912739386
2	1.3844508087260614	1.0407994574743722	0.3436513512516892
3	1.0407994574743722	0.98172653090277	0.059072926571602236
4	0.98172653090277	0.9821931119620635	0.000466581059293536
5	0.9821931119620635	0.9821931577517948	4.5789731339951345e-8

#i	$x(i-1)$	$x(i)$	$ x(i)-x(i-1) $
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