Taking the derivative of a function.

Vlad Lazar aka Properdosik and god of recursions.

May 15, 2023

1 Introduction

Rest in peace, my brothers, for it is coming...

2 Variables processing.

Variables that you entered during initialization:
$x = 61.566$

3 Initial tree.

$$[cos((x + [-50 \cdot sin([y \cdot x])])) \cdot cos((x + [-50 \cdot sin([y \cdot x])]))]$$

4 Simplified initial tree.

$$[cos((x + [-50 \cdot sin([y \cdot x])])) \cdot cos((x + [-50 \cdot sin([y \cdot x])]))]$$

5 Differentiated tree.

$$([[[-1 \cdot sin((x + [-50 \cdot sin([y \cdot x])]))] \cdot (1 + ([0 \cdot sin([y \cdot x])] + [[cos([y \cdot x]) \cdot ([0 \cdot x] + [1 \cdot y])] \cdot -50]))] \cdot cos((x + [-50 \cdot sin([y \cdot x])]))] + [[[-1 \cdot sin((x + [-50 \cdot sin([y \cdot x])]))] \cdot (1 + ([0 \cdot sin([y \cdot x])] + [[cos([y \cdot x]) \cdot ([0 \cdot x] + [1 \cdot y])] \cdot -50]))] \cdot cos((x + [-50 \cdot sin([y \cdot x])]))])$$

6 Simplified differentiated tree.

$$([[[-1 \cdot sin((x + [-50 \cdot sin([y \cdot x])]))] \cdot (1 + [[cos([y \cdot x]) \cdot y] \cdot (-50)])] \cdot cos((x + [-50 \cdot sin([y \cdot x])]))] + [[[-1 \cdot sin((x + [-50 \cdot sin([y \cdot x])]))] \cdot (1 + [[cos([y \cdot x]) \cdot y] \cdot (-50)])] \cdot cos((x + [-50 \cdot sin([y \cdot x])]))])$$