1 Introduction

$CrInGeCrInGeProduction.Supercringeintroductionhere:$

2 Some basic knowledge about researching problem...

Parameters and constants we use in this work:
Constants (3):
e = 2.718282
pi = 3.141593
AbObA = 1337.228690
Variables (2):
x = 1.000000
kek = 13.000000
Parameters of exploration :
Number of differentiates : 2
Macloren's accuracy : 3
Tanget point : 0.200000
Delta coverage of tangent point: 2.500000
Graph diapasone : $[-1:15]$
So let's calculate smth with a given function: f(x, kek) = $\frac{1.000}{\ln{(1.000+x\cdot kek)}}$
Firstly, let's simplify this expression (if possible): f(x, kek) = $\frac{1.000}{\ln{(1.000+x\cdot kek)}}$

3 Exploration of the expression as a function of multiple variables

Calculation value of function in the point BRITISH SCIENTISTS WERE SHOCKED, WHEN THEY COUNT IT!!!
In the point $M_0(x_0,\, kek_0) = (1.000,\, 13.000)$ **it's value** = 0.37892
Personally, I've always thought about first derivation of something like that function... Haven't you?
But now, by using informatics and math skills I feel that I'm prepared enough to calculate it!
`1 step:` Finding a derivation of kek
When I was child, my father always told me: "Remember, son:
$(kek)' =$ ... = [top secret] = ... =
$= 1.000$
`2 step:` Finding a derivation of x
thanks to the results of my colleagues' scientific work, I know that:
$(x)' =$ ... = [top secret] = ... =
$= 1.000$
`3 step:` Finding a derivation of $x\cdot kek$
What if:
$(x\cdot kek)' =$ ... = [top secret] = ... =
$= kek + x$
`4 step:` Finding a derivation of 1.000
If someone asked me that in the middle of the night, I wouldn't hesitate to say:
$(1.000)' =$ ... = [top secret] = ... =
$= 0.000$
`5 step:` Finding a derivation of $1.000 + x\cdot kek$
It's really easy to find:
$(1.000 + x\cdot kek)' =$ ... = [top secret] = ... =
$= kek + x$
`6 step:` Finding a derivation of $\ln{(1.000 + x\cdot kek)}$
My friends always beat me, because I didn't know that:
$(\ln{(1.000 + x\cdot kek)})' =$ ... = [top secret] = ... =
$= \frac{1.000}{1.000+x\cdot kek}\cdot(kek + x)$
`7 step:` Finding a derivation of 1.000
Sounds logical that it is the same as:
$(1.000)' =$ ... = [top secret] = ... =
$= 0.000$
`8 step:` Finding a derivation of $\frac{1.000}{\ln{(1.000+x\cdot kek)}}$
My roommate mumbled it in his sleep all night:
$(\frac{1.000}{\ln{(1.000+x\cdot kek)}})' =$ ... = [top secret] = ... =
$= \frac{(-1.000)\cdot\frac{1.000}{1.000+x\cdot kek}\cdot(kek+x)}{(\ln{(1.000+x\cdot kek)})^{2.000}}$
Congratulations! **The first derivation of the expression** is:
f′(x, kek) = $\frac{(-1.000)\cdot\frac{1.000}{1.000+x\cdot kek}\cdot(kek+x)}{(\ln{(1.000+x\cdot kek)})^{2.000}}$
In the point $M_0(x_0,\, kek_0) = (1.000,\, 13.000)$ it's value = -0.14358

Finding the 2 derivation Let's find **the 1 derivation** of the expression:
`1 step:` Finding a derivation of kek
What if:
$(kek)' =$ ... = [top secret] = ... =
$= 1.000$
`2 step:` Finding a derivation of x
While preparing for exams, I learned a lot of new things, for example:
$(x)' =$ ... = [top secret] = ... =
$= 1.000$
`3 step:` Finding a derivation of $x\cdot kek$
Sounds logical that it is the same as:
$(x\cdot kek)' =$ ... = [top secret] = ... =
$= kek + x$
`4 step:` Finding a derivation of 1.000
I was asked not to tell anyone that:
$(1.000)' =$ ... = [top secret] = ... =
$= 0.000$
`5 step:` Finding a derivation of $1.000 + x\cdot kek$
Even my two-aged sister knows that:
$(1.000 + x\cdot kek)' =$ ... = [top secret] = ... =
$= kek + x$
`6 step:` Finding a derivation of $\ln{(1.000 + x\cdot kek)}$
I was asked not to tell anyone that:
$(\ln{(1.000 + x\cdot kek)})' =$ ... = [top secret] = ... =
$= \frac{1.000}{1.000+x\cdot kek}\cdot(kek + x)$
`7 step:` Finding a derivation of 1.000
If someone asked me that in the middle of the night, I wouldn't hesitate to say:
$(1.000)' =$ ... = [top secret] = ... =
$= 0.000$
`8 step:` Finding a derivation of $\frac{1.000}{\ln{(1.000+x\cdot kek)}}$
thanks to the results of my colleagues' scientific work, I know that:
$(\frac{1.000}{\ln{(1.000+x\cdot kek)}})' =$ ... = [top secret] = ... =
$= \frac{(-1.000)\cdot\frac{1.000}{1.000+x\cdot kek}\cdot(kek+x)}{(\ln{(1.000+x\cdot kek)})^{2.000}}$
Let's find **the 2 derivation** of the expression:
`1 step:` Finding a derivation of kek
My roommate mumbled it in his sleep all night:
$(kek)' =$ ... = [top secret] = ... =
$= 1.000$
`2 step:` Finding a derivation of x
Even my two-aged sister knows that:
$(x)' =$ ... = [top secret] = ... =
$= 1.000$
`3 step:` Finding a derivation of $x\cdot kek$
Man... Just look:
$(x\cdot kek)' =$ ... = [top secret] = ... =
$= kek + x$
`4 step:` Finding a derivation of 1.000
For centuries, people have hunted for the secret knowledge that:
$(1.000)' =$ ... = [top secret] = ... =
$= 0.000$
`5 step:` Finding a derivation of $1.000 + x\cdot kek$
I was asked not to tell anyone that:
$(1.000 + x\cdot kek)' =$ ... = [top secret] = ... =
$= kek + x$
`6 step:` Finding a derivation of $\ln{(1.000 + x\cdot kek)}$
For centuries, people have hunted for the secret knowledge that:
$(\ln{(1.000 + x\cdot kek)})' =$ ... = [top secret] = ... =
$= \frac{1.000}{1.000+x\cdot kek}\cdot(kek + x)$
`7 step:` Finding a derivation of $(\ln{(1.000 + x\cdot kek)})^{2.000}$
When I was child, my father always told me: "Remember, son:
$((\ln{(1.000 + x\cdot kek)})^{2.000})' =$ ... = [top secret] = ... =
$= 2.000\cdot\ln{(1.000 + x\cdot kek)}\cdot\frac{1.000}{1.000+x\cdot kek}\cdot(kek + x)$
`8 step:` Finding a derivation of x
While preparing for exams, I learned a lot of new things, for example:
$(x)' =$ ... = [top secret] = ... =
$= 1.000$
`9 step:` Finding a derivation of kek
thanks to the results of my colleagues' scientific work, I know that:
$(kek)' =$ ... = [top secret] = ... =
$= 1.000$
`10 step:` Finding a derivation of $kek + x$
Sounds logical that it is the same as:
$(kek + x)' =$ ... = [top secret] = ... =
$= 2.000$
`11 step:` Finding a derivation of kek
A true prince must know that:
$(kek)' =$ ... = [top secret] = ... =
$= 1.000$
`12 step:` Finding a derivation of x
If someone asked me that in the middle of the night, I wouldn't hesitate to say:
$(x)' =$ ... = [top secret] = ... =
$= 1.000$
`13 step:` Finding a derivation of $x\cdot kek$
If someone asked me that in the middle of the night, I wouldn't hesitate to say:
$(x\cdot kek)' =$ ... = [top secret] = ... =
$= kek + x$
`14 step:` Finding a derivation of 1.000
My friends always beat me, because I didn't know that:
$(1.000)' =$ ... = [top secret] = ... =
$= 0.000$
`15 step:` Finding a derivation of $1.000 + x\cdot kek$
What if:
$(1.000 + x\cdot kek)' =$ ... = [top secret] = ... =
$= kek + x$
`16 step:` Finding a derivation of 1.000

Sounds logical that it is the same as:
$(1.000)' = \ldots = [\text{top secret}] = \ldots =$
$= 0.000$
`17 step:` Finding a derivation of $\frac{1.000}{1.000+x\cdot kek}$
thanks to the results of my colleagues' scientific work, I know that:
$(\frac{1.000}{1.000+x\cdot kek})' = \ldots = [\text{top secret}] = \ldots =$
$= \frac{(-1.000)\cdot(kek+x)}{(1.000+x\cdot kek)^{2.000}}$
`18 step:` Finding a derivation of $\frac{1.000}{1.000+x\cdot kek} \cdot (kek+x)$
Even my two-aged sister knows that:
$(\frac{1.000}{1.000+x\cdot kek} \cdot (kek+x))' = \ldots = [\text{top secret}] = \ldots =$
$= \frac{(-1.000)\cdot(kek+x)}{(1.000+x\cdot kek)^{2.000}} \cdot (kek+x) + 2.000 \cdot \frac{1.000}{1.000+x\cdot kek}$
`19 step:` Finding a derivation of -1.000
While preparing for exams, I learned a lot of new things, for example:
$(-1.000)' = \ldots = [\text{top secret}] = \ldots =$
$= 0.000$
`20 step:` Finding a derivation of $(-1.000) \cdot \frac{1.000}{1.000+x\cdot kek} \cdot (kek+x)$
When I was child, my father always told me: "Remember, son:
$((-1.000) \cdot \frac{1.000}{1.000+x\cdot kek} \cdot (kek+x))' = \ldots = [\text{top secret}] = \ldots =$
$= (-1.000) \cdot (\frac{(-1.000)\cdot(kek+x)}{(1.000+x\cdot kek)^{2.000}} \cdot (kek+x) + 2.000 \cdot \frac{1.000}{1.000+x\cdot kek})$
`21 step:` Finding a derivation of $\frac{(-1.000)\cdot\frac{1.000}{1.000+x\cdot kek}\cdot(kek+x)}{(\ln(1.000+x\cdot kek))^{2.000}}$
It's really easy to find:
$(\frac{(-1.000)\cdot\frac{1.000}{1.000+x\cdot kek}\cdot(kek+x)}{(\ln(1.000+x\cdot kek))^{2.000}})' = \ldots = [\text{top secret}] = \ldots =$
$= \frac{(-1.000)\cdot(\frac{(-1.000)\cdot(kek+x)}{(1.000+x\cdot kek)^{2.000}}\cdot(kek+x)+2.000\cdot\frac{1.000}{1.000+x\cdot kek})\cdot(\ln(1.000+x\cdot kek))^{2.000}-2.000\cdot\ln(1.000+x\cdot kek)\cdot\frac{1.000}{1.000+x\cdot kek}\cdot(kek+x)\cdot(-1.000)\cdot\frac{1.000}{1.000+x\cdot kek}\cdot(kek+x)}{((\ln(1.000+x\cdot kek))^{2.000})^{2.000}}$

Finally... The 2 derivation of the expression:
$f^{(2)}(\text{x, kek}) = \frac{(-1.000)\cdot(\frac{(-1.000)\cdot(kek+x)}{(1.000+x\cdot kek)^{2.000}}\cdot(kek+x)+2.000\cdot\frac{1.000}{1.000+x\cdot kek})\cdot(\ln(1.000+x\cdot kek))^{2.000}-2.000\cdot\ln(1.000+x\cdot kek)\cdot\frac{1.000}{1.000+x\cdot kek}\cdot(kek+x)\cdot(-1.000)\cdot\frac{1.000}{1.000+x\cdot kek}\cdot(kek+x)}{((\ln(1.000+x\cdot kek))^{2.000})^{2.000}}$
BRITISH SCIENTISTS WERE SHOCKED AGAIN, WHEN THEY COUNT THE 2 DERIVATION OF THIS EXPRESSION!!!
In the point $M_0(x_0,\, kek_0) = (1.000,\, 13.000)$ it's value = 0.23188

Finding partical derivations Partial derivation of the expression on the variable x:
$\frac{\partial f}{\partial x} = \frac{(-1.000)\cdot 13.000\cdot\frac{1.000}{1.000+13.000\cdot x}}{(\ln(1.000+13.000\cdot x))^{2.000}}$
In the point $M_0(x_0,\, kek_0) = (1.000,\, 13.000)$ it's value = -0.13333 !!!
Partial derivation of the expression on the variable kek:
$\frac{\partial f}{\partial kek} = \frac{(-1.000)\cdot\frac{1.000}{1.000+kek}}{(\ln(1.000+kek))^{2.000}}$
In the point $M_0(x_0,\, kek_0) = (1.000,\, 13.000)$ it's value = -0.01026 !!!

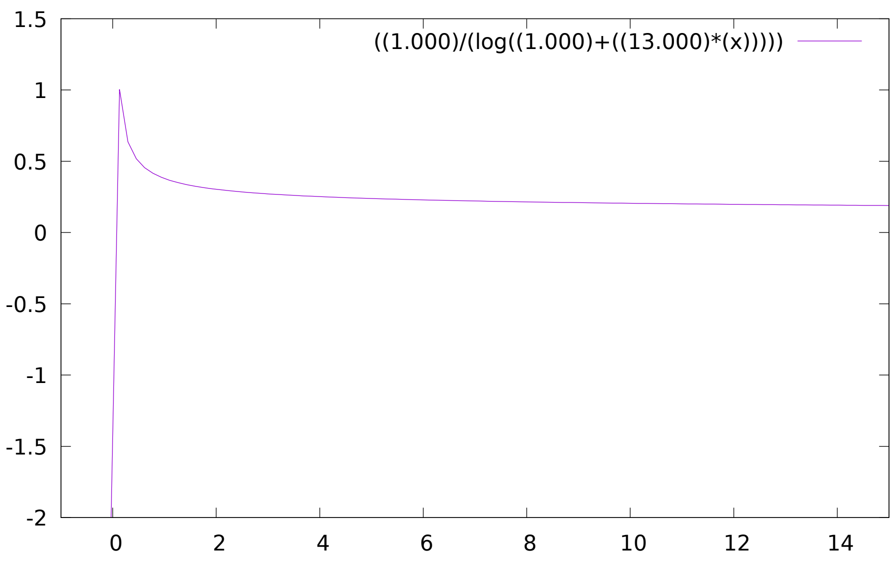
Finding full derivation Full derivation:
$\sqrt{(\frac{(-1.000)\cdot 13.000\cdot\frac{1.000}{1.000+13.000\cdot x}}{(\ln(1.000+13.000\cdot x))^{2.000}})^{2.000} + (\frac{(-1.000)\cdot\frac{1.000}{1.000+kek}}{(\ln(1.000+kek))^{2.000}})^{2.000}}$
In the point $M_0(x_0,\, kek_0) = (1.000,\, 13.000)$ it's value = 0.13372 !!!

4 Exploration the expression as a function of the first variable

Now let's consider the expression as a function of x variable: $\text{f(x)} = \frac{1.000}{\ln(1.000+13.000\cdot x)}$

Decomposing on Macloren's formula **Maklorens formula for** $x \to x_0 = 1.000$:
$\text{f(x)} = 0.379 + (-0.133)\cdot(x-1.000) + 0.109\cdot(x-1.000)^{2.000} + (-0.098)\cdot(x-1.000)^{3.000} + o((x-1.000)^{3.000})$

Graphics **Graph** $\text{f(x)} = \frac{1.000}{\ln(1.000+13.000\cdot x)}$ on the diapasone $x \in [-1:15]$:



Equations in the point **Tangent equation** in the point $x_0 = 0.200$:
$\text{f(x)} = (-2.201)\cdot(x-0.200) + 0.781$
Normal equation in the point $x_0 = 0.200$:
$\text{f(x)} = 0.454\cdot(x-0.200) + 0.781$
Their graphs in $\delta = 2.50000$ coverage of the point $x_0 = 0.200000$