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 (3):
a = 3.141500
kek = 13.000000
x = 1.000000
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(a, kek, x) $= \cos(a + kek) + \ln(1.000 + x \cdot kek)$
Firstly, let's simplify this expression (if possible): f(a, kek, x) $= \cos(a + kek) + \ln(1.000 + x \cdot kek)$

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 $M_0(a_0, kek_0, x_0) = (3.142, 13.000, 1.000)$ **it's value** = 1.73157
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 kek
Sounds logical that it is the same as:
$(kek)' =$ ... = [top secret] = ... =
$= 1.000$
`8 step:` Finding a derivation of a
My roommate mumbled it in his sleep all night:
$(a)' =$ ... = [top secret] = ... =
$= 1.000$
`9 step:` Finding a derivation of $a + kek$
What if:
$(a + kek)' =$ ... = [top secret] = ... =
$= 2.000$
`10 step:` Finding a derivation of $\cos(a + kek)$
While preparing for exams, I learned a lot of new things, for example:
$(\cos(a + kek))' =$ ... = [top secret] = ... =
$= 2.000 \cdot (-1.000) \cdot \sin(a + kek)$
`11 step:` Finding a derivation of $\cos(a + kek) + \ln(1.000 + x \cdot kek)$
Sounds logical that it is the same as:
$(\cos(a + kek) + \ln(1.000 + x \cdot kek))' =$ ... = [top secret] = ... =
$= 2.000 \cdot (-1.000) \cdot \sin(a + kek) + \frac{1.000}{1.000 + x \cdot kek} \cdot (kek + x)$
Congratulations! **The first derivation of the expression** is:
f'(a, kek, x) $= 2.000 \cdot (-1.000) \cdot \sin(a + kek) + \frac{1.000}{1.000 + x \cdot kek} \cdot (kek + x)$
In the point $M_0(a_0, kek_0, x_0) = (3.142, 13.000, 1.000)$ it's value = 1.84017

Finding the 2 derivation Let's find **the 1 derivation** of the expression:
`1 step:` Finding a derivation of kek
I was asked not to tell anyone that:
$(kek)' =$ ... = [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 $x \cdot kek$
I was asked not to tell anyone that:

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

$(a + kek)' =$ **... = [top secret] = ...** $=$
$= 2.000$
`15 step:` Finding a derivation of $\sin(a + kek)$
It's really easy to find:
$(\sin(a + kek))' =$ **... = [top secret] = ...** $=$
$= 2.000 \cdot \cos(a + kek)$
`16 step:` Finding a derivation of -1.000
For centuries, people have hunted for the secret knowledge that:
$(-1.000)' =$ **... = [top secret] = ...** $=$
$= 0.000$
`17 step:` Finding a derivation of $(-1.000) \cdot \sin(a + kek)$
If someone asked me that in the middle of the night, I wouldn't hesitate to say:
$((-1.000) \cdot \sin(a + kek))' =$ **... = [top secret] = ...** $=$
$= (-1.000) \cdot 2.000 \cdot \cos(a + kek)$
`18 step:` Finding a derivation of 2.000
Sounds logical that it is the same as:
$(2.000)' =$ **... = [top secret] = ...** $=$
$= 0.000$
`19 step:` Finding a derivation of $2.000 \cdot (-1.000) \cdot \sin(a + kek)$
I spend the hole of my life to find the answer and finally it's:
$(2.000 \cdot (-1.000) \cdot \sin(a + kek))' =$ **... = [top secret] = ...** $=$
$= 2.000 \cdot (-1.000) \cdot 2.000 \cdot \cos(a + kek)$
`20 step:` Finding a derivation of $2.000 \cdot (-1.000) \cdot \sin(a + kek) + \frac{1.000}{1.000 + x \cdot kek} \cdot (kek + x)$
While preparing for exams, I learned a lot of new things, for example:
$(2.000 \cdot (-1.000) \cdot \sin(a + kek) + \frac{1.000}{1.000 + x \cdot kek} \cdot (kek + x))' =$ **... = [top secret] = ...** $=$
$= 2.000 \cdot (-1.000) \cdot 2.000 \cdot \cos(a + kek) + \frac{(-1.000) \cdot (kek + x)}{(1.000 + x \cdot kek)^{2.000}} \cdot (kek + x) + 2.000 \cdot \frac{1.000}{1.000 + x \cdot kek}$

Finally... The 2 derivation of the expression:
$f^{(2)}(\text{a, kek, x}) = 2.000 \cdot (-1.000) \cdot 2.000 \cdot \cos(a + kek) + \frac{(-1.000) \cdot (kek + x)}{(1.000 + x \cdot kek)^{2.000}} \cdot (kek + x) + 2.000 \cdot \frac{1.000}{1.000 + x \cdot kek}$
BRITISH SCIENTISTS WERE SHOCKED AGAIN, WHEN THEY COUNT THE 2 DERIVATION OF THIS EXPRESSION!!!
In the point $M_0(a_0, kek_0, x_0) = (3.142, 13.000, 1.000)$ it's value $= 2.77280$

Finding partical derivations Partial derivation of the expression on the variable a:
$\frac{\partial f}{\partial a} = (-1.000) \cdot \sin(a + 13.000)$
In the point $M_0(a_0, kek_0, x_0) = (3.142, 13.000, 1.000)$ it's value $= 0.42008$!!!
Partial derivation of the expression on the variable kek:
$\frac{\partial f}{\partial kek} = (-1.000) \cdot \sin(3.142 + kek) + \frac{1.000}{1.000 + kek}$
In the point $M_0(a_0, kek_0, x_0) = (3.142, 13.000, 1.000)$ it's value $= 0.49151$!!!
Partial derivation of the expression on the variable x:
$\frac{\partial f}{\partial x} = 13.000 \cdot \frac{1.000}{1.000 + 13.000 \cdot x}$
In the point $M_0(a_0, kek_0, x_0) = (3.142, 13.000, 1.000)$ it's value $= 0.92857$!!!

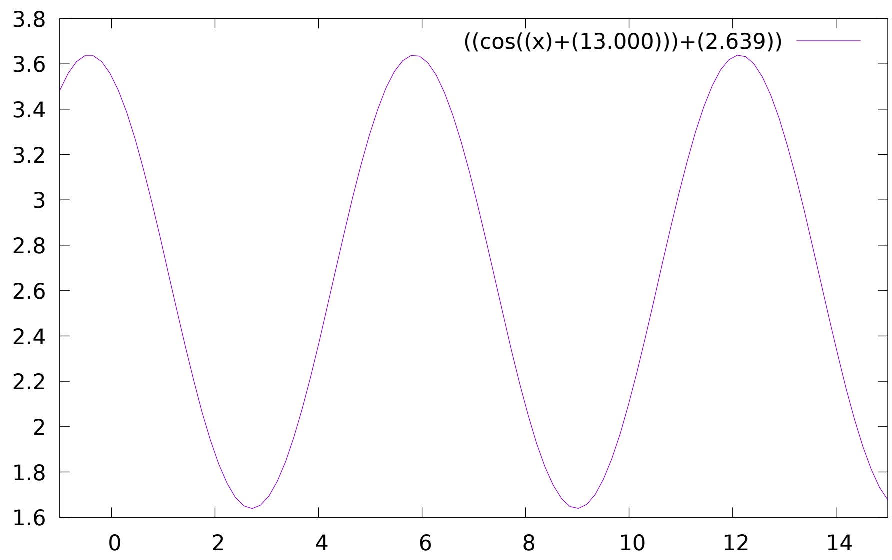
Finding full derivation Full derivation:
$\sqrt{((-1.000) \cdot \sin(a + 13.000))^{2.000} + ((-1.000) \cdot \sin(3.142 + kek) + \frac{1.000}{1.000 + kek})^{2.000} + (13.000 \cdot \frac{1.000}{1.000 + 13.000 \cdot x})^{2.000}}$
In the point $M_0(a_0, kek_0, x_0) = (3.142, 13.000, 1.000)$ it's value $= 1.13150$!!!

4 Exploration the expression as a function of the first variable

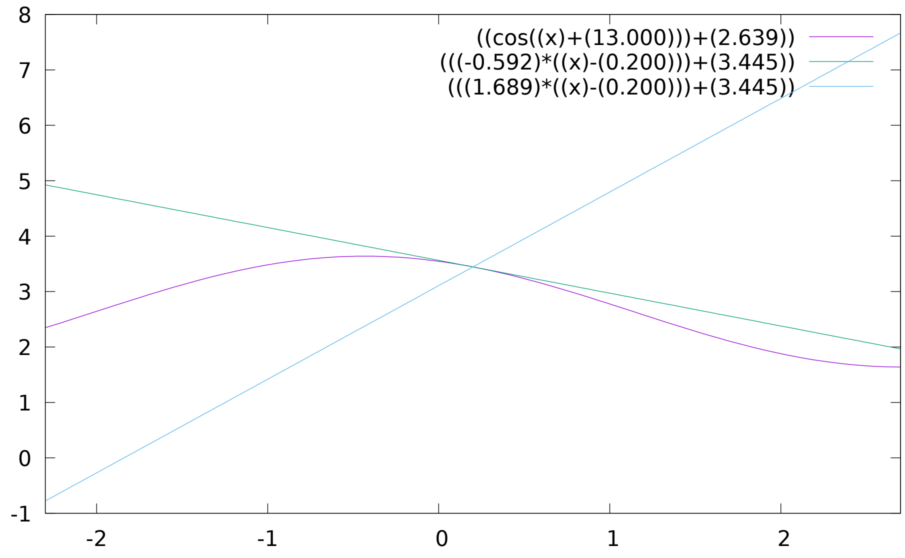
Now let's consider the expression as a function of a variable: $\text{f(a)} = \cos(a + 13.000) + 2.639$

Decomposing on Macloren's formula **Maklorens formula for** $a \to a_0 = 3.142$:
$\text{f(a)} = 1.732 + 0.420 \cdot (a - 3.142) + 0.454 \cdot (a - 3.142)^{2.000} + (-0.070) \cdot (a - 3.142)^{3.000} + \text{o}((a - 3.142)^{3.000})$

Graphics **Graph** $\text{f(a)} = \cos(a + 13.000) + 2.639$ on the diapasone $a \in [-1 : 15]$:



Equations in the point **Tangent equation** in the point $a_0 = 0.200$:
$\text{f(a)} = (-0.592) \cdot (a - 0.200) + 3.445$
Normal equation in the point $a_0 = 0.200$:
$\text{f(a)} = 1.689 \cdot (a - 0.200) + 3.445$
Their graphs in $\delta = 2.50000$ coverage of the point $a_0 = 0.200000$



((cos((x)+(13.000)))+(2.639))
(((-0.592)*((x)-(0.200)))+(3.445))
(((1.689)*((x)-(0.200)))+(3.445))
8
7
6
5
4
3
2
1
0
-1
-2
-1
0
1
2