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) $= \cos\left(a + \frac{kek}{1.000^{AbObA}}\right) + \ln\left(1.000 + x \cdot kek \cdot \left(1.000^{(\ln e)} - 0.000\right)\right)$

Firstly, let's insert all constants: f(a, kek, x) $= \cos\left(a + \frac{kek}{1.000^{1337.229}}\right) + \ln\left(1.000 + x \cdot kek \cdot \left(1.000^{(\ln 2.718)} - 0.000\right)\right)$

And simplify this expression (if possible): f(a, kek, x) $= \cos(a + kek) + \ln(1.000 + x \cdot kek)$

3 Exploration 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
While preparing for exams, I learned a lot of new things, for example:
$(kek)' =$
$= 1.000$
`2 step:` Finding a derivation of x
Only after two cups of beer you might understand it:
$(x)' =$
$= 1.000$
`3 step:` Finding a derivation of $x \cdot kek$
Never say it to girls:
$(x \cdot kek)' =$
$= kek + x$
`4 step:` Finding a derivation of 1.000
Only by using special skills we might know::
$(1.000)' = \ldots = [\text{top secret}] = \ldots =$
$= 0.000$
`5 step:` Finding a derivation of $1.000 + x \cdot kek$
What if:
$(1.000 + x \cdot kek)' =$
$= kek + x$
`6 step:` Finding a derivation of $\ln(1.000 + x \cdot kek)$
Even my two-aged sister knows that:
$(\ln(1.000 + x \cdot kek))' =$
$= \frac{1.000}{1.000 + x \cdot kek} \cdot (kek + x)$
`7 step:` Finding a derivation of kek
The first task in MIPT was to calculate:
$(kek)' =$
$= 1.000$
`8 step:` Finding a derivation of a
Never say it to girls:
$(a)' =$
$= 1.000$
`9 step:` Finding a derivation of $a + kek$
It's simple as fuck:
$(a + kek)' = \ldots = [\text{top secret}] = \ldots =$
$= 2.000$
`10 step:` Finding a derivation of $\cos(a + kek)$
As we know:
$(\cos(a + kek))' =$
$= 2.000 \cdot (-1.000) \cdot \sin(a + kek)$
`11 step:` Finding a derivation of $\cos(a + kek) + \ln(1.000 + x \cdot kek)$
I was asked not to tell anyone that:
$(\cos(a + kek) + \ln(1.000 + x \cdot kek))' =$
$= 2.000 \cdot (-1.000) \cdot \sin(a + kek) + \frac{1.000}{1.000 + x \cdot kek} \cdot (kek + x)$
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
Only after two cups of beer you might understand it:
$(kek)' = \ldots = [\text{top secret}] = \ldots =$
$= 1.000$
`2 step:` Finding a derivation of x
Even my two-aged sister knows that:
$(x)' =$

$= 1.000$
`3 step:` Finding a derivation of $x \cdot kek$
Even my two-aged sister knows that:
$(x \cdot kek)' =$
$= kek + x$
`4 step:` Finding a derivation of 1.000
When I was a child, my father always told me: "Remember, son:
$(1.000)' =$
$= 0.000$
`5 step:` Finding a derivation of $1.000 + x \cdot kek$
I have no words to describe this fact:
$(1.000 + x \cdot kek)' = \ldots = [\text{top secret}] = \ldots =$
$= kek + x$
`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
I have no words to describe this fact:
$(kek)' = \ldots = [\text{top secret}] = \ldots =$
$= 1.000$
`8 step:` Finding a derivation of a
While preparing for exams, I learned a lot of new things, for example:
$(a)' =$
$= 1.000$
`9 step:` Finding a derivation of $a + kek$
It's really easy to find:
$(a + kek)' =$
$= 2.000$
`10 step:` Finding a derivation of $\cos (a + kek)$
What if:
$(\cos (a + kek))' = \ldots = [\text{top secret}] = \ldots =$
$= 2.000 \cdot (-1.000) \cdot \sin (a + kek)$
`11 step:` Finding a derivation of $\cos (a + kek) + \ln (1.000 + x \cdot kek)$
You should be aware of the fact that:
$(\cos (a + kek) + \ln (1.000 + x \cdot kek))' =$
$= 2.000 \cdot (-1.000) \cdot \sin (a + kek) + \frac{1.000}{1.000+x \cdot kek} \cdot (kek + x)$
So the 1 derivation of the expression is:

$2.000 \cdot (-1.000) \cdot \sin (a + kek) + \frac{1.000}{1.000+x \cdot kek} \cdot (kek + x)$

Let's find **the 2 derivation** of the expression:

`1 step:` Finding a derivation of x
A true prince must know that:
$(x)' =$
$= 1.000$
`2 step:` Finding a derivation of kek
For centuries, people have hunted for the secret knowledge that:
$(kek)' =$
$= 1.000$
`3 step:` Finding a derivation of $kek + x$
I spend the hole of my life to find the answer and finally it's:
$(kek + x)' = \ldots = [\text{top secret}] = \ldots =$
$= 2.000$
`4 step:` Finding a derivation of kek
Never say it to girls:
$(kek)' =$
$= 1.000$
`5 step:` Finding a derivation of x
It's really easy to find:
$(x)' =$
$= 1.000$
`6 step:` Finding a derivation of $x \cdot kek$
Sometimes I hear the same voice in my head, it always says:
$(x \cdot kek)' = \ldots = [\text{top secret}] = \ldots =$
$= kek + x$
`7 step:` Finding a derivation of 1.000
Even my two-aged sister knows that:
$(1.000)' =$
$= 0.000$
`8 step:` Finding a derivation of $1.000 + x \cdot kek$
Only by using special skills we might know::
$(1.000 + x \cdot kek)' =$
$= kek + x$
`9 step:` Finding a derivation of 1.000
My friends always beat me, because I didn't know that:
$(1.000)' = \ldots = [\text{top secret}] = \ldots =$
$= 0.000$
`10 step:` Finding a derivation of $\frac{1.000}{1.000+x \cdot kek}$
A true prince must know that:
$(\frac{1.000}{1.000+x \cdot kek})' = \ldots = [\text{top secret}] = \ldots =$
$= \frac{(-1.000) \cdot (kek+x)}{(1.000+x \cdot kek)^{2.000}}$
`11 step:` Finding a derivation of $\frac{1.000}{1.000+x \cdot kek} \cdot (kek + x)$
Sometimes I hear the same voice in my head, it always says:
$(\frac{1.000}{1.000+x \cdot kek} \cdot (kek + x))' =$
$= \frac{(-1.000) \cdot (kek+x)}{(1.000+x \cdot kek)^{2.000}} \cdot (kek + x) + 2.000 \cdot \frac{1.000}{1.000+x \cdot kek}$
`12 step:` Finding a derivation of kek
Only by using special skills we might know::
$(kek)' = \ldots = [\text{top secret}] = \ldots =$
$= 1.000$
`13 step:` Finding a derivation of a

While preparing for exams, I learned a lot of new things, for example:
$(a)' =$
$= 1.000$
`14 step:` Finding a derivation of $a + kek$
She: please, never speak with my dad about math... Me: ok) Also me after homework of matan:
$(a + kek)' =$ ... = [top secret] = ... =
$= 2.000$
`15 step:` Finding a derivation of $\sin(a + kek)$
My roommate mumbled it in his sleep all night:
$(\sin(a + kek))' =$ ... = [top secret] = ... =
$= 2.000 \cdot \cos(a + kek)$
`16 step:` Finding a derivation of -1.000
A true prince must know that:
$(-1.000)' =$ ... = [top secret] = ... =
$= 0.000$
`17 step:` Finding a derivation of $(-1.000) \cdot \sin(a + kek)$
A true prince must know that:
$((-1.000) \cdot \sin(a + kek))' =$
$= (-1.000) \cdot 2.000 \cdot \cos(a + kek)$
`18 step:` Finding a derivation of 2.000
If someone asked me that in the middle of the night, I wouldn't hesitate to say:
$(2.000)' =$
$= 0.000$
`19 step:` Finding a derivation of $2.000 \cdot (-1.000) \cdot \sin(a + kek)$
When I was a child, my father always told me: "Remember, son:
$(2.000 \cdot (-1.000) \cdot \sin(a + kek))' =$ ... = [top secret] = ... =
$= 2.000 \cdot (-1.000) \cdot 2.000 \cdot \cos(a + kek)$
`20 step:` Finding a derivation of $2.000 \cdot (-1.000) \cdot \sin(a + kek) + \frac{1.000}{1.000 + x \cdot kek} \cdot (kek + x)$
thanks to the results of my colleagues' scientific work, I know that:
$(2.000 \cdot (-1.000) \cdot \sin(a + kek) + \frac{1.000}{1.000 + x \cdot kek} \cdot (kek + x))' =$
$= 2.000 \cdot (-1.000) \cdot 2.000 \cdot \cos(a + kek) + \frac{(-1.000) \cdot (kek + x)}{(1.000 + x \cdot kek)^{2.000}} \cdot (kek + x) + 2.000 \cdot \frac{1.000}{1.000 + x \cdot kek}$
So the 2 derivation of the expression is:

$2.000 \cdot (-1.000) \cdot 2.000 \cdot \cos(a + kek) + \frac{(-1.000) \cdot (kek + x)}{(1.000 + x \cdot kek)^{2.000}} \cdot (kek + x) + 2.000 \cdot \frac{1.000}{1.000 + x \cdot kek}$

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 !!!

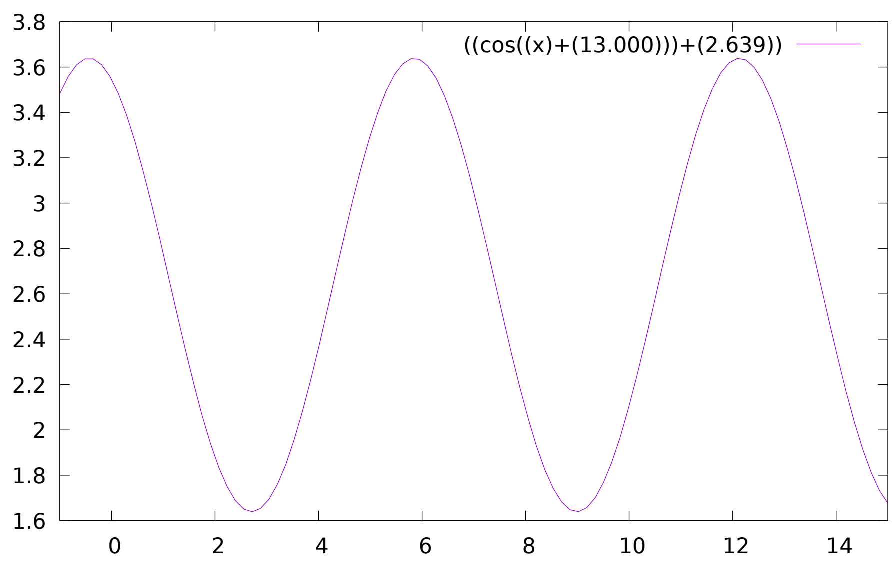
4 Exploration the expression as a function of the first variable

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

Decomposing on Macloren's formula **Maklorens formula for** $a \to a_0 = 3.142$:

f(a) $= 1.732 + 0.420 \cdot (a - 3.142) + 0.454 \cdot (a - 3.142)^{2.000} + (-0.070) \cdot (a - 3.142)^{3.000} + o((a - 3.142)^{3.000})$

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



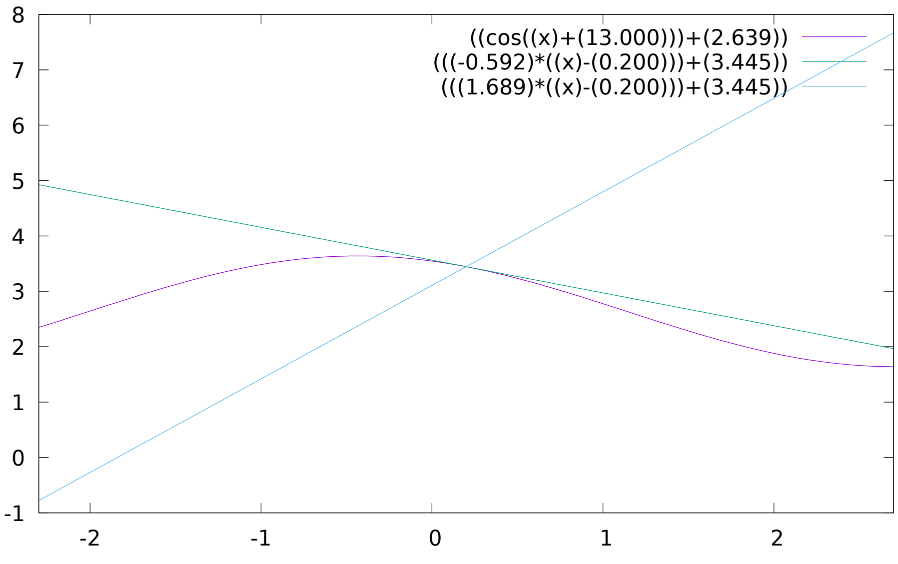
Equations in the point **Tangent equation** in the point $a_0 = 0.200$:

f(a) $= (-0.592) \cdot (a - 0.200) + 3.445$

Normal equation in the point $a_0 = 0.200$:

f(a) $= 1.689 \cdot (a - 0.200) + 3.445$

Their graphs in $\delta = 2.50000$ coverage of the point $a_0 = 0.200000$



5 Conclusion

$$Ultrarcringeconclusionhere:$$