CrIn GeCrIn GeProduction. Supercringe introduction here:

## 2 Some basic knowledge about researching problem...

Parameters and constants we use in this work:

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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 (1.000^{(\ln e)} - 0.000)\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 (1.000^{(\ln 2.718)} - 0.000)\right)
And simplify this expression (if possible): f(a, kek, x) = \cos(a + kek) + \ln(1.000 + x \cdot kek)
     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
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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)' = \dots = [top secret] = \dots =
= 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)' = \dots = [\text{top secret}] = \dots =
= 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:
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Finding the 2 derivation Let's find the 1 derivation of the expression:

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

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1 step: Finding a derivation of kek
Only after two cups of beer you might understand it:
(kek)' = \dots = [\text{top secret}] = \dots =
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= 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)' = \dots = [top secret] = \dots =
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))' = \dots = [\text{top secret}] = \dots =
= \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)' = \dots = [top secret] = \dots =
= 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))' = \dots = [\text{top secret}] = \dots =
= 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)' = \dots = [top secret] = \dots =
= 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)' = \dots = [\text{top secret}] = \dots =
= 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)' = \dots = [top secret] = \dots =
= 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})' = \dots = [\text{top secret}] = \dots = \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
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Only by using special skills we might know::
(kek)' = \dots = [\mathbf{top} \ \mathbf{secret}] = \dots =
= 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))' = \dots = [\text{top secret}] = \dots =
=2.000\cdot\cos\left(a+kek\right)
16 step: Finding a derivation of -1.000
A true prince must know that:
(-1.000)' = \dots = [top secret] = \dots =
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))' = \dots = [\text{top secret}] = \dots =
= 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)}(a, \text{ 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\left(a + 13.000\right)
    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 !!!
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## Finding full derivation Full derivation:

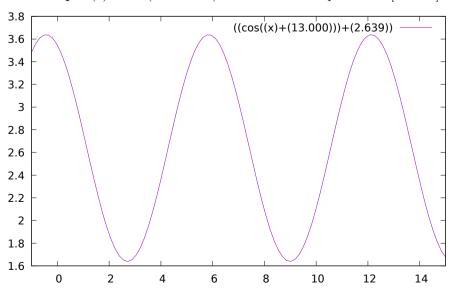
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\sqrt{((-1.000) \cdot \sin{(a+13.000)})^{2.000} + ((-1.000) \cdot \sin{(3.142 + kek)} + \frac{1.000}{1.000 + kek})^{2.000} + (13.000 \cdot \frac{1.000}{1.000 + 13.000 \cdot x})^{2.000}}
In the point M_0(a_0, kek_0, x_0) = (3.142, 13.000, 1.000) it's value = 1.13150 !!!
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## 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:  $f(a) = \cos(a + 13.000) + 2.639$ 

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Decomposing on Macloren's formula Maklorens formula for a \rightarrow 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})
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**Graph**  $f(a) = \cos(a + 13.000) + 2.639$  on the diapasone  $a \in [-1:15]$ :



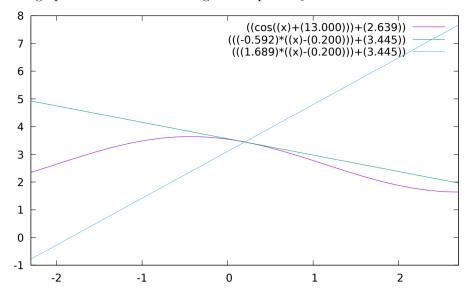
Equations in the point Tangent equation in the point  $a_0 = 0.200$ :

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

**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

Ultrar cringe conclusion here: