CrInGeCrInGe Production. Super cringe introduction here: Let's calculate smth with expression given: ff(x y) =

$$\frac{\sin\frac{x}{2.000}}{y+e}$$

Firstly, let's insert all constants and simplify it:

$$\frac{\sin\frac{x}{2.000}}{y + 2.718}$$

BRITISH SCIENTISTS WERE SHOCKED, WHEN THEY COUNT IT!!! IN THE POINT (x = 1.500, y = 2.000)IT'S VALUE = 0.144 !!!

1 step: finding a derivation of function:

2.718

here it is:

0.000

2 step: finding a derivation of function:

y

here it is:

1.000

3 step: finding a derivation of function:

y + 2.718

here it is:

1.000

4 step: finding a derivation of function:

2.000

here it is:

0.000

5 step: finding a derivation of function:

x

here it is:

1.000

6 step: finding a derivation of function:

 $\frac{x}{2.000}$ 

here it is:

$$\frac{2.000}{4.000}$$

7 step: finding a derivation of function:

$$\sin\frac{x}{2.000}$$

here it is:

$$0.500 \cdot \cos \frac{x}{2.000}$$

8 step: finding a derivation of function:

$$\frac{\sin\frac{x}{2.000}}{y+2.718}$$

here it is:

$$\frac{0.500 \cdot \cos \frac{x}{2.000} \cdot (y + 2.718) - \sin \frac{x}{2.000}}{(y + 2.718)^{2.000}}$$

Congratulations! The first derivation of the expression is:

$$\frac{0.500 \cdot \cos \frac{x}{2.000} \cdot (y + 2.718) - \sin \frac{x}{2.000}}{(y + 2.718)^{2.000}}$$

IN THE POINT (x = 1.500, y = 2.000) IT'S VALUE = 0.047 !!!

Let's calculate the 2 derivation of the expression:

Calculating the 1 derivation of the expression:

1 step: finding a derivation of function:

2.718

here it is:

0.000

2 step: finding a derivation of function:

y

here it is:

1.000

3 step: finding a derivation of function:

y + 2.718

here it is:

1.000

4 step: finding a derivation of function:

2.000

here it is:

0.000

5 step: finding a derivation of function:

 $\boldsymbol{x}$ 

here it is:

1.000

6 step: finding a derivation of function:

 $\frac{x}{2.000}$ 

here it is:

 $\frac{2.000}{4.000}$ 

7 step: finding a derivation of function:

 $\sin\frac{x}{2.000}$ 

here it is:

$$0.500 \cdot \cos \frac{x}{2.000}$$

8 step: finding a derivation of function:

 $\frac{\sin\frac{x}{2.000}}{y + 2.718}$ 

here it is:

$$\frac{0.500 \cdot \cos \frac{x}{2.000} \cdot (y + 2.718) - \sin \frac{x}{2.000}}{\left(y + 2.718\right)^{2.000}}$$

Calculating the 2 derivation of the expression:

1 step: finding a derivation of function:

2.718

here it is:

0.000

2 step: finding a derivation of function:

y

here it is:

1.000

3 step: finding a derivation of function:

(y + 2.718)

here it is:

1.000

4 step: finding a derivation of function:

 $(y+2.718)^{2.000}$ 

here it is:

 $2.000 \cdot (y + 2.718)$ 

 $5~\mathrm{step} \colon$  finding a derivation of function:

2.000

here it is:

0.000

6 step: finding a derivation of function:

x

here it is:

1.000

7 step: finding a derivation of function:

 $\frac{x}{2.000}$ 

here it is:

 $\frac{2.000}{4.000}$ 

8 step: finding a derivation of function:

 $\sin\frac{x}{2.000}$ 

here it is:

 $0.500 \cdot \cos \frac{x}{2.000}$ 

9 step: finding a derivation of function:

2.718

here it is:

0.000

10 step: finding a derivation of function:

y

here it is:

1.000

11 step: finding a derivation of function:

$$(y + 2.718)$$

here it is:

1.000

12 step: finding a derivation of function:

2.000

here it is:

0.000

13 step: finding a derivation of function:

x

here it is:

1.000

14 step: finding a derivation of function:

 $\frac{x}{2.000}$ 

here it is:

 $\frac{2.000}{4.000}$ 

15 step: finding a derivation of function:

 $\cos\frac{x}{2.000}$ 

here it is:

 $0.500 \cdot (-1.000) \cdot \sin \frac{x}{2.000}$ 

16 step: finding a derivation of function:

0.500

here it is:

0.000

17 step: finding a derivation of function:

 $0.500 \cdot \cos \frac{x}{2.000}$ 

here it is:

 $0.500 \cdot 0.500 \cdot (-1.000) \cdot \sin \frac{x}{2.000}$ 

18 step: finding a derivation of function:

$$0.500 \cdot \cos \frac{x}{2.000} \cdot (y + 2.718)$$

here it is:

$$0.500 \cdot 0.500 \cdot (-1.000) \cdot \sin \frac{x}{2.000} \cdot (y + 2.718) + 0.500 \cdot \cos \frac{x}{2.000}$$

19 step: finding a derivation of function:

$$0.500 \cdot \cos \frac{x}{2.000} \cdot (y + 2.718) - \sin \frac{x}{2.000}$$

here it is:

$$(0.500 \cdot 0.500 \cdot (-1.000) \cdot \sin \frac{x}{2.000} \cdot (y + 2.718) + 0.500 \cdot \cos \frac{x}{2.000}) - 0.500 \cdot \cos \frac{x}{2.000}$$

20 step: finding a derivation of function:

$$\frac{0.500 \cdot \cos \frac{x}{2.000} \cdot (y + 2.718) - \sin \frac{x}{2.000}}{\left(y + 2.718\right)^{2.000}}$$

here it is:

$$\frac{\left((0.500 \cdot 0.500 \cdot (-1.000) \cdot \sin \frac{x}{2.000} \cdot (y + 2.718) + 0.500 \cdot \cos \frac{x}{2.000}) - 0.500 \cdot \cos \frac{x}{2.000}\right) \cdot \left(y + 2.718\right)^{2.000} - 2.}{\left(\left(y + 2.718\right)^{2.000}\right)^{2.000}}$$

Finally... The 2 derivation of the expression:

$$\frac{\left((0.500 \cdot 0.500 \cdot (-1.000) \cdot \sin \frac{x}{2.000} \cdot (y + 2.718) + 0.500 \cdot \cos \frac{x}{2.000}) - 0.500 \cdot \cos \frac{x}{2.000}\right) \cdot (y + 2.718)^{2.000} - 2.}{\left((y + 2.718)^{2.000}\right)^{2.000}}$$

BRITISH SCIENTISTS WERE SHOCKED, WHEN THEY COUNT THE 2 DERIVATION OF THIS EXPRESSION!!! IN THE POINT (x = 1.500, y = 2.000)IT'S VALUE = -0.056!!!

Partial derivation of the expression on the variable 'x':

$$\frac{4.718 \cdot 0.500 \cdot \cos \frac{x}{2.000}}{22.262}$$

IN THE POINT (x = 1.500, y = 2.000) IT'S VALUE = 0.077538 !!! Partial derivation of the expression on the variable 'y':

$$\frac{(-0.682)}{(y+2.718)^{2.000}}$$

IN THE POINT (x = 1.500, y = 2.000) IT'S VALUE = -0.030619 !!! Full derivation:

$$\sqrt{\left(\frac{4.718 \cdot 0.500 \cdot \cos\frac{x}{2.000}}{22.262}\right)^{2.000} + \left(\frac{\left(-0.682\right)}{\left(y + 2.718\right)^{2.000}}\right)^{2.000}}$$

IN THE POINT (x = 1.500, y = 2.000) IT'S VALUE = 0.083 !!! Let's consider the expression as a function of x variable: f(x) =

$$\frac{\sin\frac{x}{2.000}}{4.718}$$

Maklorens formula for x near to 1.500000:

$$0.144 + 0.078 \cdot (x - 1.500) + (-0.018) \cdot (x - 1.500)^{2.000} + (-0.003) \cdot (x - 1.500)^{3.000}$$

And remainig member is o maloe from:

$$(x - 1.500)^{3.000}$$

Graph f(x):

Tangent equation in point 4.000: f(x) =

$$(-0.044) \cdot (x - 4.000) + 0.193$$

Normal equation in point 4.000: f(x) =

$$22.676 \cdot (x - 4.000) + 0.193$$