

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

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

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

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

BRITISH SCIENTISTS WERE SHOCKED, WHEN THEY COUNT IT!!! IN
 THE POINT ($x = 3.000$, $y = 1.000$)IT'S VALUE = 0.035 !!!

1 step: finding a derivation of function:

$$x$$

here it is:

$$1.000$$

2 step: finding a derivation of function:

$$y$$

here it is:

$$1.000$$

3 step: finding a derivation of function:

$$y + x$$

here it is:

$$2.000$$

4 step: finding a derivation of function:

$$x$$

here it is:

$$1.000$$

5 step: finding a derivation of function:

$$\sin x$$

here it is:

$$\cos x$$

6 step: finding a derivation of function:

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

$$1$$

here it is:

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

Congratulations! The first derivation of the expression is:

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

IN THE POINT (x = 3.000, y = 1.000)IT'S VALUE = -0.265 !!!

Let's calculate the 3 derivation of the expression:

Calculating the 1 derivation of the expression:

1 step: finding a derivation of function:

$$x$$

here it is:

$$1.000$$

2 step: finding a derivation of function:

$$y$$

here it is:

$$1.000$$

3 step: finding a derivation of function:

$$y + x$$

here it is:

$$2.000$$

4 step: finding a derivation of function:

$$x$$

here it is:

$$1.000$$

5 step: finding a derivation of function:

$$\sin x$$

here it is:

$$\cos x$$

6 step: finding a derivation of function:

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

here it is:

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

Calculating the 2 derivation of the expression:

1 step: finding a derivation of function:

$$x$$

here it is:

$$1.000$$

2 step: finding a derivation of function:

$$y$$

here it is:

$$1.000$$

3 step: finding a derivation of function:

$$(y + x)$$

here it is:

$$2.000$$

4 step: finding a derivation of function:

$$(y + x)^{2.000}$$

here it is:

$$2.000 \cdot 2.000 \cdot (y + x)$$

5 step: finding a derivation of function:

$$x$$

here it is:

$$1.000$$

6 step: finding a derivation of function:

$$\sin x$$

here it is:

$$\cos x$$

7 step: finding a derivation of function:

$$2.000$$

here it is:

$$0.000$$

$$3$$

8 step: finding a derivation of function:

$$2.000 \cdot \sin x$$

here it is:

$$2.000 \cdot \cos x$$

9 step: finding a derivation of function:

$$x$$

here it is:

$$1.000$$

10 step: finding a derivation of function:

$$y$$

here it is:

$$1.000$$

11 step: finding a derivation of function:

$$(y + x)$$

here it is:

$$2.000$$

12 step: finding a derivation of function:

$$x$$

here it is:

$$1.000$$

13 step: finding a derivation of function:

$$\cos x$$

here it is:

$$(-1.000) \cdot \sin x$$

14 step: finding a derivation of function:

$$\cos x \cdot (y + x)$$

here it is:

$$(-1.000) \cdot \sin x \cdot (y + x) + 2.000 \cdot \cos x$$

15 step: finding a derivation of function:

$$\cos x \cdot (y + x) - 2.000 \cdot \sin x$$

here it is:

$$((-1.000) \cdot \sin x \cdot (y + x) + 2.000 \cdot \cos x) - 2.000 \cdot \cos x$$

16 step: finding a derivation of function:

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

here it is:

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

Calculating the 3 derivation of the expression:

1 step: finding a derivation of function:

$$x$$

here it is:

$$1.000$$

2 step: finding a derivation of function:

$$y$$

here it is:

$$1.000$$

3 step: finding a derivation of function:

$$(y + x)$$

here it is:

$$2.000$$

4 step: finding a derivation of function:

$$((y + x)^{2.000})$$

here it is:

$$2.000 \cdot 2.000 \cdot (y + x)$$

5 step: finding a derivation of function:

$$((y + x)^{2.000})^{2.000}$$

here it is:

$$2.000 \cdot (y + x)^{2.000} \cdot 2.000 \cdot 2.000 \cdot (y + x)$$

6 step: finding a derivation of function:

$$x$$

here it is:

$$1.000$$

7 step: finding a derivation of function:

$$\sin x$$

here it is:

$$\cos x$$

8 step: finding a derivation of function:

$$2.000$$

here it is:

$$0.000$$

9 step: finding a derivation of function:

$$2.000 \cdot \sin x$$

here it is:

$$2.000 \cdot \cos x$$

10 step: finding a derivation of function:

$$x$$

here it is:

$$1.000$$

11 step: finding a derivation of function:

$$y$$

here it is:

$$1.000$$

12 step: finding a derivation of function:

$$(y + x)$$

here it is:

$$2.000$$

13 step: finding a derivation of function:

$$x$$

here it is:

$$1.000$$

14 step: finding a derivation of function:

$$\cos x$$

here it is:

$$(-1.000) \cdot \sin x$$

15 step: finding a derivation of function:

$$\cos x \cdot (y + x)$$

here it is:

$$(-1.000) \cdot \sin x \cdot (y + x) + 2.000 \cdot \cos x$$

16 step: finding a derivation of function:

$$(\cos x \cdot (y + x) - 2.000 \cdot \sin x)$$

here it is:

$$((-1.000) \cdot \sin x \cdot (y + x) + 2.000 \cdot \cos x) - 2.000 \cdot \cos x$$

17 step: finding a derivation of function:

$$x$$

here it is:

$$1.000$$

18 step: finding a derivation of function:

$$y$$

here it is:

$$1.000$$

19 step: finding a derivation of function:

$$(y + x)$$

here it is:

$$2.000$$

20 step: finding a derivation of function:

$$2.000$$

here it is:

$$0.000$$

21 step: finding a derivation of function:

$$2.000 \cdot (y + x)$$

here it is:

$$4.000$$

22 step: finding a derivation of function:

$$2.000$$

here it is:

$$0.000$$

23 step: finding a derivation of function:

$$2.000 \cdot 2.000 \cdot (y + x)$$

here it is:

$$8.000$$

24 step: finding a derivation of function:

$$2.000 \cdot 2.000 \cdot (y + x) \cdot (\cos x \cdot (y + x) - 2.000 \cdot \sin x)$$

here it is:

$$8.000 \cdot (\cos x \cdot (y + x) - 2.000 \cdot \sin x) + (((-1.000) \cdot \sin x \cdot (y + x) + 2.000 \cdot \cos x) - 2.000 \cdot \cos x) \cdot 2.000 \cdot 2.000 \cdot (y + x)$$

25 step: finding a derivation of function:

$$x$$

here it is:

$$1.000$$

26 step: finding a derivation of function:

$$y$$

here it is:

$$1.000$$

27 step: finding a derivation of function:

$$(y + x)$$

here it is:

$$2.000$$

28 step: finding a derivation of function:

$$(y + x)^{2.000}$$

here it is:

$$2.000 \cdot 2.000 \cdot (y + x)$$

29 step: finding a derivation of function:

$$x$$

here it is:

$$1.000$$

30 step: finding a derivation of function:

$$\cos x$$

here it is:

$$(-1.000) \cdot \sin x$$

31 step: finding a derivation of function:

$$2.000$$

here it is:

$$0.000$$

32 step: finding a derivation of function:

$$2.000 \cdot \cos x$$

here it is:

$$2.000 \cdot (-1.000) \cdot \sin x$$

33 step: finding a derivation of function:

$$x$$

here it is:

$$1.000$$

34 step: finding a derivation of function:

$$\cos x$$

here it is:

$$(-1.000) \cdot \sin x$$

35 step: finding a derivation of function:

$$2.000$$

here it is:

$$0.000$$

36 step: finding a derivation of function:

$$2.000 \cdot \cos x$$

here it is:

$$2.000 \cdot (-1.000) \cdot \sin x$$

37 step: finding a derivation of function:

$$x$$

here it is:

$$1.000$$

38 step: finding a derivation of function:

$$y$$

here it is:

$$1.000$$

39 step: finding a derivation of function:

$$(y + x)$$

here it is:

$$2.000$$

40 step: finding a derivation of function:

$$x$$

here it is:

$$1.000$$

41 step: finding a derivation of function:

$$\sin x$$

here it is:

$$\cos x$$

42 step: finding a derivation of function:

$$(-1.000)$$

here it is:

$$0.000$$

43 step: finding a derivation of function:

$$(-1.000) \cdot \sin x$$

here it is:

$$(-1.000) \cdot \cos x$$

44 step: finding a derivation of function:

$$(-1.000) \cdot \sin x \cdot (y + x)$$

here it is:

$$(-1.000) \cdot \cos x \cdot (y + x) + 2.000 \cdot (-1.000) \cdot \sin x$$

45 step: finding a derivation of function:

$$((-1.000) \cdot \sin x \cdot (y + x) + 2.000 \cdot \cos x)$$

here it is:

$$(-1.000) \cdot \cos x \cdot (y + x) + 2.000 \cdot (-1.000) \cdot \sin x + 2.000 \cdot (-1.000) \cdot \sin x$$

46 step: finding a derivation of function:

$$(((-1.000) \cdot \sin x \cdot (y + x) + 2.000 \cdot \cos x) - 2.000 \cdot \cos x)$$

here it is:

$$((-1.000) \cdot \cos x \cdot (y + x) + 2.000 \cdot (-1.000) \cdot \sin x + 2.000 \cdot (-1.000) \cdot \sin x) - 2.000 \cdot (-1.000) \cdot \sin x$$

47 step: finding a derivation of function:

$$(((-1.000) \cdot \sin x \cdot (y + x) + 2.000 \cdot \cos x) - 2.000 \cdot \cos x) \cdot (y + x)^{2.000}$$

here it is:

$$(((-1.000) \cdot \cos x \cdot (y + x) + 2.000 \cdot (-1.000) \cdot \sin x + 2.000 \cdot (-1.000) \cdot \sin x) - 2.000 \cdot (-1.000) \cdot \sin x) \cdot (y + x)^{2.000}$$

48 step: finding a derivation of function:

$$(((-1.000) \cdot \sin x \cdot (y + x) + 2.000 \cdot \cos x) - 2.000 \cdot \cos x) \cdot (y + x)^{2.000} - 2.000 \cdot 2.000 \cdot (y + x) \cdot (\cos x \cdot (y + x)^{2.000})$$

here it is:

$$((((-1.000) \cdot \cos x \cdot (y + x) + 2.000 \cdot (-1.000) \cdot \sin x + 2.000 \cdot (-1.000) \cdot \sin x) - 2.000 \cdot (-1.000) \cdot \sin x) \cdot (y + x)^{2.000}) - 2.000 \cdot 2.000 \cdot (y + x) \cdot (\cos x \cdot (y + x)^{2.000})$$

49 step: finding a derivation of function:

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

here it is:

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

Finally... The 3 derivation of the expression:

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

BRITISH SCIENTISTS WERE SHOCKED, WHEN THEY COUNT THE 3 DERIVATION OF THIS EXPRESSION!!! IN THE POINT (x = 3.000, y = 1.000)IT'S VALUE = -0.097 !!!

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

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

IN THE POINT (x = 3.000, y = 1.000) IT'S VALUE = -0.256318 !!!

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

$$\frac{(-0.141)}{(y + 3.000)^{2.000}}$$

IN THE POINT (x = 3.000, y = 1.000) IT'S VALUE = -0.008820 !!!

Full derivation:

$$\sqrt{\left(\frac{\cos x \cdot (1.000 + x) - \sin x}{(1.000 + x)^{2.000}}\right)^{2.000} + \left(\frac{(-0.141)}{(y + 3.000)^{2.000}}\right)^{2.000}}$$

IN THE POINT (x = 3.000, y = 1.000)IT'S VALUE = 0.256 !!!

Let's consider the expression as a function of x variable: f(x) =

$$\frac{\sin x}{1.000 + x}$$

Maklorens formula for x near to 3.000000:

$$0.035 + (-0.256) \cdot (x - 3.000) + 0.046 \cdot (x - 3.000)^{2.000} + 0.030 \cdot (x - 3.000)^{3.000} + (-0.006) \cdot (x - 3.000)^{4.000}$$

And remainig member is o maloe from:

$$(x - 3.000)^{4.000}$$

Graph f(x):

Tangent equation in point -2.000: f(x) =

$$1.325 \cdot (x - (-2.000)) + 0.909$$

Normal equation in point -2.000: f(x) =

$$(-0.754) \cdot (x - (-2.000)) + 0.909$$