$CrInGeCrInGeProduction.Supercringeintroductionhere$:

Let's calculate smth with expression given: f(x, y) =

$$x^{3.000} \cdot \sin(x+y)$$

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

$$x^{3.000} \cdot \sin(x+y)$$

BRITISH SCIENTISTS WERE SHOCKED, WHEN THEY COUNT IT!!! IN THE POINT (x = 3.000, y = 2.000)IT'S VALUE = -25.891 !!!

1 step: finding a derivation of function:

$$y$$

here it is:

$$1.000$$

2 step: finding a derivation of function:

$$x$$

here it is:

$$1.000$$

3 step: finding a derivation of function:

$$(x+y)$$

here it is:

$$2.000$$

4 step: finding a derivation of function:

$$\sin(x+y)$$

here it is:

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

5 step: finding a derivation of function:

$$x$$

here it is:

$$1.000$$

6 step: finding a derivation of function:

$$x^{3.000}$$

here it is:

$$3.000 \cdot x^{2.000}$$

7 step: finding a derivation of function:

$$x^{3.000} \cdot \sin(x+y)$$

here it is:

$$3.000 \cdot x^{2.000} \cdot \sin(x+y) + 2.000 \cdot \cos(x+y) \cdot x^{3.000}$$

Congratulations! The first derivation of the expression is:

$$3.000 \cdot x^{2.000} \cdot \sin(x+y) + 2.000 \cdot \cos(x+y) \cdot x^{3.000}$$

IN THE POINT (x = 3.000, y = 2.000)IT'S VALUE = -10.573 !!!

Let's calculate the 3 derivation of the expression:

Calculating the 1 derivation of the expression:

1 step: finding a derivation of function:

$$y$$

here it is:

$$1.000$$

2 step: finding a derivation of function:

$$x$$

here it is:

$$1.000$$

3 step: finding a derivation of function:

$$(x+y)$$

here it is:

$$2.000$$

4 step: finding a derivation of function:

$$\sin(x+y)$$

here it is:

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

5 step: finding a derivation of function:

$$x$$

here it is:

$$1.000$$

6 step: finding a derivation of function:

$$x^{3.000}$$

here it is:

$$3.000 \cdot x^{2.000}$$

7 step: finding a derivation of function:

$$x^{3.000} \cdot \sin(x+y)$$

here it is:

$$3.000 \cdot x^{2.000} \cdot \sin(x+y) + 2.000 \cdot \cos(x+y) \cdot x^{3.000}$$

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:

$$x^{3.000}$$

here it is:

$$3.000 \cdot x^{2.000}$$

3 step: finding a derivation of function:

$$y$$

here it is:

$$1.000$$

4 step: finding a derivation of function:

$$x$$

here it is:

$$1.000$$

5 step: finding a derivation of function:

$$(x+y)$$

here it is:

$$2.000$$

6 step: finding a derivation of function:

$$\cos(x+y)$$

here it is:

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

7 step: finding a derivation of function:

$$2.000$$

here it is:

$$0.000$$

8 step: finding a derivation of function:

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

here it is:

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

9 step: finding a derivation of function:

$$2.000 \cdot \cos(x+y) \cdot x^{3.000}$$

here it is:

$$2.000 \cdot 2.000 \cdot (-1.000) \cdot \sin(x+y) \cdot x^{3.000} + 3.000 \cdot x^{2.000} \cdot 2.000 \cdot \cos(x+y)$$

10 step: finding a derivation of function:

$$y$$

here it is:

$$1.000$$

11 step: finding a derivation of function:

$$x$$

here it is:

$$1.000$$

12 step: finding a derivation of function:

$$(x+y)$$

here it is:

$$2.000$$

$$1$$

13 step: finding a derivation of function:

here it is:

$$\sin(x+y)$$

14 step: finding a derivation of function:

here it is:

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

15 step: finding a derivation of function:

here it is:

$$x$$

16 step: finding a derivation of function:

here it is:

$$1.000$$

17 step: finding a derivation of function:

here it is:

$$x^{2.000}$$

18 step: finding a derivation of function:

here it is:

$$2.000 \cdot x$$

19 step: finding a derivation of function:

here it is:

$$3.000$$

Calculating the 3 derivation of the expression:
1 step: finding a derivation of function:

here it is:

$$0.000$$

2 step: finding a derivation of function:

here it is:

$$3.000 \cdot x^{2.000}$$

3 step: finding a derivation of function:

here it is:

$$3.000 \cdot 2.000 \cdot x$$

4 step: finding a derivation of function:

here it is:

$$3.000 \cdot x^{2.000} \cdot \sin(x+y)$$

5 step: finding a derivation of function:

here it is:

$$3.000 \cdot 2.000 \cdot x \cdot \sin(x+y) + 2.000 \cdot \cos(x+y) \cdot 3.000 \cdot x^{2.000}$$

6 step: finding a derivation of function:

here it is:

$$3.000 \cdot x^{2.000} \cdot \sin(x+y) + 2.000 \cdot \cos(x+y) \cdot x^{3.000}$$

7 step: finding a derivation of function:

here it is:

$$3.000 \cdot 2.000 \cdot x \cdot \sin(x+y) + 2.000 \cdot \cos(x+y) \cdot 3.000 \cdot x^{2.000} + 2.000 \cdot 2.000 \cdot (-1.000) \cdot \sin(x+y) \cdot x^{3.000} + 3.000 \cdot x^{2.000} \cdot 2.000 \cdot \cos(x+y)$$

8 step: finding a derivation of function:

here it is:

$$y$$

9 step: finding a derivation of function:

here it is:

$$1.000$$

10 step: finding a derivation of function:

here it is:

$$x$$

11 step: finding a derivation of function:

here it is:

$$1.000$$

12 step: finding a derivation of function:

here it is:

$$(x+y)$$

13 step: finding a derivation of function:

here it is:

$$2.000$$

14 step: finding a derivation of function:

here it is:

$$\cos(x+y)$$

15 step: finding a derivation of function:

here it is:

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

16 step: finding a derivation of function:

here it is:

$$2.000$$

17 step: finding a derivation of function:

here it is:

$$0.000$$

18 step: finding a derivation of function:

here it is:

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

19 step: finding a derivation of function:

here it is:

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

20 step: finding a derivation of function:

here it is:

$$x$$

21 step: finding a derivation of function:

here it is:

$$1.000$$

22 step: finding a derivation of function:

here it is:

$$x^{2.000}$$

$$2.000 \cdot x$$

$$3.000$$

$$0.000$$

$$3.000 \cdot x^{2.000}$$

$$3.000 \cdot 2.000 \cdot x$$

$$3.000 \cdot x^{2.000} \cdot 2.000 \cdot \cos(x+y)$$

$$3.000 \cdot 2.000 \cdot x \cdot 2.000 \cdot \cos(x+y) + 2.000 \cdot 2.000 \cdot (-1.000) \cdot \sin(x+y) \cdot 3.000 \cdot x^{2.000}$$

$$x$$

$$1.000$$

$$x^{3.000}$$

$$3.000 \cdot x^{2.000}$$

$$y$$

$$1.000$$

$$x$$

$$1.000$$

$$(x+y)$$

$$2.000$$

$$\sin(x+y)$$

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

$$(-1.000)$$

$$0.000$$

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

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

$$2.000$$

$$0.000$$

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

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

$$2.000$$

$$0.000$$

$$2$$

23 step: finding a derivation of function:

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

here it is:

24 step: finding a derivation of function:

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

here it is:

25 step: finding a derivation of function:

$$2.000 \cdot 2.000 \cdot (-1.000) \cdot \sin(x+y) \cdot x^{3.000}$$

here it is:

26 step: finding a derivation of function:

$$2.000 \cdot 2.000 \cdot (-1.000) \cdot 2.000 \cdot \cos(x+y) \cdot x^{3.000} + 3.000 \cdot x^{2.000} \cdot 2.000 \cdot 2.000 \cdot (-1.000) \cdot \sin(x+y)$$

here it is:

27 step: finding a derivation of function:

$$2.000 \cdot 2.000 \cdot (-1.000) \cdot \sin(x+y) \cdot x^{3.000} + 3.000 \cdot x^{2.000} \cdot 2.000 \cdot \cos(x+y)$$

here it is:

28 step: finding a derivation of function:

$$2.000 \cdot 2.000 \cdot (-1.000) \cdot 2.000 \cdot \cos(x+y) \cdot x^{3.000} + 3.000 \cdot x^{2.000} \cdot 2.000 \cdot 2.000 \cdot (-1.000) \cdot \sin(x+y) + 3.000 \cdot 2.000 \cdot x \cdot 2.000 \cdot \cos(x+y) + 2.000 \cdot 2.000 \cdot (-1.000) \cdot \sin(x+y) \cdot 3.000 \cdot x^{2.000}$$

here it is:

29 step: finding a derivation of function:

$$x$$

here it is:

30 step: finding a derivation of function:

$$1.000$$

here it is:

31 step: finding a derivation of function:

$$x^{2.000}$$

here it is:

32 step: finding a derivation of function:

$$2.000 \cdot x$$

here it is:

33 step: finding a derivation of function:

$$3.000$$

here it is:

34 step: finding a derivation of function:

$$0.000$$

here it is:

35 step: finding a derivation of function:

$$3.000 \cdot x^{2.000}$$

here it is:

36 step: finding a derivation of function:

$$3.000 \cdot 2.000 \cdot x$$

here it is:

37 step: finding a derivation of function:

$$y$$

here it is:

38 step: finding a derivation of function:

$$1.000$$

here it is:

39 step: finding a derivation of function:

$$x$$

here it is:

40 step: finding a derivation of function:

$$1.000$$

here it is:

41 step: finding a derivation of function:

$$(x+y)$$

here it is:

42 step: finding a derivation of function:

$$2.000$$

here it is:

43 step: finding a derivation of function:

$$\cos(x+y)$$

here it is:

44 step: finding a derivation of function:

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

here it is:

45 step: finding a derivation of function:

$$2.000$$

here it is:

46 step: finding a derivation of function:

$$0.000$$

here it is:

47 step: finding a derivation of function:

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

here it is:

48 step: finding a derivation of function:

$$2.000 \cdot 2.000 \cdot (-1.000) \cdot \sin(x+y) \cdot 3.000 \cdot x^{2.000} + 3.000 \cdot 2.000 \cdot x \cdot 2.000 \cdot \cos(x+y) + 2.000 \cdot 2.000 \cdot (-1.000) \cdot \sin(x+y) \cdot 3.000 \cdot x^{2.000}$$

here it is:

$$6.000 \cdot \sin(x+y) + 2.000 \cdot \cos(x+y) \cdot 3.000 \cdot 2.000 \cdot x + 2.000 \cdot 2.000 \cdot (-1.000) \cdot \sin(x+y) \cdot 3.000 \cdot x^{2.000} + 3.000 \cdot 2.000 \cdot x \cdot 2.000 \cdot \cos(x+y) + 2.000 \cdot 2.000 \cdot (-1.000) \cdot 2.000 \cdot \cos(x+y) \cdot x^{3.000} + 3.000 \cdot x^{2.000} \cdot 2.000 \cdot 2.000 \cdot (-1.000) \cdot \sin(x+y) + 3.000 \cdot 2.000 \cdot x \cdot 2.000 \cdot \cos(x+y) + 2.000 \cdot 2.000 \cdot (-1.000) \cdot \sin(x+y) \cdot 3.000 \cdot x^{2.000}$$

Finally... The 3 derivation of the expression:

$$6.000 \cdot \sin(x+y) + 2.000 \cdot \cos(x+y) \cdot 3.000 \cdot 2.000 \cdot x + 2.000 \cdot 2.000 \cdot (-1.000) \cdot \sin(x+y) \cdot 3.000 \cdot x^{2.000} + 3.000 \cdot 2.000 \cdot x \cdot 2.000 \cdot \cos(x+y) + 2.000 \cdot 2.000 \cdot (-1.000) \cdot 2.000 \cdot \cos(x+y) \cdot x^{3.000} + 3.000 \cdot x^{2.000} \cdot 2.000 \cdot 2.000 \cdot (-1.000) \cdot \sin(x+y) + 3.000 \cdot 2.000 \cdot x \cdot 2.000 \cdot \cos(x+y) + 2.000 \cdot 2.000 \cdot (-1.000) \cdot \sin(x+y) \cdot 3.000 \cdot x^{2.000}$$

BRITISH SCIENTISTS WERE SHOCKED, WHEN THEY COUNT THE 3 DERIVATION OF THIS EXPRESSION!!! IN THE POINT (x = 3.000, y = 2.000)IT'S VALUE = 274.302 !!!

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

$$3.000 \cdot x^{2.000} \cdot \sin(x+2.000) + \cos(x+2.000) \cdot x^{3.000}$$

IN THE POINT (x = 3.000, y = 2.000) IT'S VALUE = -18.232076 !!!

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

$$27.000 \cdot \cos(3.000+y)$$

IN THE POINT (x = 3.000, y = 2.000) IT'S VALUE = 7.658879 !!!

Full derivation:

$$\sqrt{(3.000 \cdot x^{2.000} \cdot \sin(x+2.000) + \cos(x+2.000) \cdot x^{3.000})^{2.000} + (27.000 \cdot \cos(3.000+y))^{2.000}}$$

IN THE POINT (x = 3.000, y = 2.000)IT'S VALUE = 19.775 !!!

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

$$x^{3.000} \cdot \sin(x+2.000)$$

Maklorens formula for x near to 3.000000:

$$(-25.891) + (-18.232) \cdot (x-3.000) + 11.974 \cdot (x-3.000)^{2.000} + 13.263 \cdot (x-3.000)^{3.000} + 2.244 \cdot (x-3.000)^{4.000}$$

And remainig member is o maloe from:

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

Graph f(x):

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

$$(-8.000) \cdot (x-(-2.000))$$

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

$$0.125 \cdot (x-(-2.000)) + -0.000$$