

Let’s calculate smth with expression given: $f(x, y) = x \cdot y^{2.000}$

Firstly, let’s insert all constants and simplify it: $x \cdot y^{2.000}$

BRITISH SCIENTISTS WERE SHOCKED, WHEN THEY COUNT IT!!! IN THE POINT (x = 3.000, y = 2.000)IT’S VALUE = 12.000 !!!
1 step: finding a derivation of function:

here it is: y
 1.000

2 step: finding a derivation of function: $y^{2.000}$
here it is: $2.000 \cdot y$

3 step: finding a derivation of function: x
here it is: 1.000

4 step: finding a derivation of function: $x \cdot y^{2.000}$
here it is: $y^{2.000} + 2.000 \cdot y \cdot x$

Congratulations! The first derivation of the expression is: $y^{2.000} + 2.000 \cdot y \cdot x$

IN THE POINT (x = 3.000, y = 2.000)IT’S VALUE = 16.000 !!!
Let’s calculate the 3 derivation of the expression:
Calculating the 1 derivation of the expression:
1 step: finding a derivation of function:

here it is: y
 1.000

2 step: finding a derivation of function: $y^{2.000}$
here it is: $2.000 \cdot y$

3 step: finding a derivation of function: x
here it is: 1.000

4 step: finding a derivation of function: $x \cdot y^{2.000}$
here it is: $y^{2.000} + 2.000 \cdot y \cdot x$

Calculating the 2 derivation of the expression:
1 step: finding a derivation of function:

here it is: x
 1.000

2 step: finding a derivation of function: y
here it is: 1.000

3 step: finding a derivation of function: 2.000
here it is: 0.000

4 step: finding a derivation of function: $2.000 \cdot y$
here it is: 2.000

5 step: finding a derivation of function: $2.000 \cdot y \cdot x$
here it is: $2.000 \cdot x + 2.000 \cdot y$

6 step: finding a derivation of function: y
here it is: 1.000

7 step: finding a derivation of function: $y^{2.000}$
here it is: $2.000 \cdot y$

8 step: finding a derivation of function: $y^{2.000} + 2.000 \cdot y \cdot x$
here it is: $2.000 \cdot y + 2.000 \cdot x + 2.000 \cdot y$

Calculating the 3 derivation of the expression:
1 step: finding a derivation of function: y
here it is: 1.000

2 step: finding a derivation of function: 2.000
here it is: 0.000

3 step: finding a derivation of function: $2.000 \cdot y$
 1

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:	2.000
here it is:	0.000
6 step: finding a derivation of function:	$2.000 \cdot x$
here it is:	2.000
7 step: finding a derivation of function:	$2.000 \cdot x + 2.000 \cdot y$
here it is:	4.000
8 step: finding a derivation of function:	y
here it is:	1.000
9 step: finding a derivation of function:	2.000
here it is:	0.000
10 step: finding a derivation of function:	$2.000 \cdot y$
here it is:	2.000
11 step: finding a derivation of function:	$2.000 \cdot y + 2.000 \cdot x + 2.000 \cdot y$
here it is:	6.000
Finally... The 3 derivation of the expression:	6.000
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 = 6.000 !!!	
Partial derivation of the expression on the variable 'x':	4.000
IN THE POINT (x = 3.000, y = 2.000) IT'S VALUE = 4.000000 !!!	
Partial derivation of the expression on the variable 'y':	$3.000 \cdot 2.000 \cdot y$
IN THE POINT (x = 3.000, y = 2.000) IT'S VALUE = 12.000000 !!!	
Full derivation:	$\sqrt{16.000 + (3.000 \cdot 2.000 \cdot y)^{2.000}}$
IN THE POINT (x = 3.000, y = 2.000)IT'S VALUE = 12.649 !!!	
Let's consider the expression as a function of x variable: f(x) =	$4.000 \cdot x$
Maklorems formula for x near to 3.000000:	$12.000 + 4.000 \cdot (x - 3.000)$
And remainig member is o maloe from:	$(x - 3.000)^{4.000}$
Graph f(x):	
Tangent equation in point -2.000: f(x) =	$4.000 \cdot (x - (-2.000)) + (-8.000)$
Normal equation in point -2.000: f(x) =	$(-0.250) \cdot (x - (-2.000)) + (-8.000)$