

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:	$2.000 \cdot y$
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) =	$4.000 \cdot x$
Maklorens 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) =	$(-0.250) \cdot (x - (-2.000)) + (-8.000)$