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:

$$y$$

here it is:

$$1.000$$

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:

$$y$$

here it is:

$$1.000$$

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:

$$x$$

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:

$$2.000$$

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 $x \to 3.000$:
    $12.000 + 4.000 \cdot (x - 3.000) + o((x - 3.000)^{4.000})$

$$x \to 2$$

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) = $(-0.250) \cdot (x - (-2.000)) + (-8.000)$