CrInGeCrInGeProduction.Supercringeintroductionhere :

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