```
CrInGeCrInGeProdu
   Let's cal-
```

culate smth with expression given:

f(x, y) =

 $x^{3.000} \cdot \ln\left(x+y\right)$

Firstly, let's insert all constants

and simplify it: $x^{3.000} \cdot \ln\left(x+y\right)$

BRITISH SCI-

ENTISTS WERE SHOCKED, WHEN

THEY COUNT

IT!!! IN THE

POINT (x = 3.000, y = 2.000)IT'S

VALUE = 43.455!!!

1 step: find-

ing a derivation of function:

y

here it is:

1.000

2 step: finding a derivation of func-

tion:

xhere it is: 1.000

3 step: finding a deriva-

tion of function:

(x+y)

here it is: 2.000

4 step: finding a derivation of function:

 $\ln(x+y)$ here it is:

1.000 $2.000 \cdot$ $\overline{x} + y$ 5 step: find-

ing a derivation of func-

tion:

xhere it is:

1.000

find-6 step: ing a deriva-

tion of function:

 $x^{3.000}$

here it is:

 $3.000 \cdot x^{2.000}$ 7 step: find-

ing a derivation of function:

 $x^{3.000} \cdot \ln\left(x + y\right)$

here it is:

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

Congratulations!

The first deriva-

tion of the expression is:

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

IN THE POINT (x = 3.000, y)= 2.000)IT'S VALUE = 54.255

!!! Let's calculate the 3 derivation of the expression:

Calculating the 1 derivation of the expression: 1 step: finding a deriva-

tion of function: y

here it is: 1.000

2 step: finding a derivation of func-

tion: x

here it is:

1.000 3 step: finding a derivation of function:

(x+y)1

3 step: finding a derivation of function: yhere it is: 1.000 4 step: finding a derivation of function: xhere it is: 1.000 5 step: finding a derivation of function: x + yhere it is: 2.0006 step: finding a derivation of function: 1.000 here it is: 0.0007 step: finding a derivation of function: 1.000 x + yhere it is: $(-1.000) \cdot 2.000$ $(x+y)^{2.000}$ 8 step: finding a derivation of function: 2.000 here it is: 0.000 9 step: finding a derivation of function: 1.000 $2.000 \cdot$ x + yhere it is: $2.000 \cdot \frac{(-2.000)}{(x+y)^{2.000}}$ 2

here it is:

2.000

4 step: finding a derivation of func-

 $\ln(x+y)$

 $2.000 \cdot \frac{1.000}{}$ x + y

ing a derivation of func-

x

1.000

 $x^{3.000}$

 $3.000 \cdot x^{2.000}$

7 step: finding a derivation of func-

 $x^{3.000} \cdot \ln\left(x+y\right)$

Calculating the 2 derivation of the expression: 1 step: finding a derivation of func-

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

here it is:

find-

here it is:

6 step: ing a derivation of func-

tion:

tion:

tion:

tion:

x

1.000

2 step: finding a derivation of func-

 $x^{3.000}$

 $3.000 \cdot x^{2.000}$

here it is:

here it is:

here it is:

find-

here it is:

5 step:

tion:

tion:

tion of function: $\frac{1.000}{r+u} \cdot x^{3.000}$ $2.000 \cdot$ here it is: $2.000 \cdot \frac{(-2.000)}{(x+y)^{2.000}} \cdot x^3$ 11 step: finding a derivation of function: here it is: 1.000 12 step: finding a derivation of function: xhere it is: 1.000 13 step: finding a derivation of function: (x+y)here it is: 2.00014 step: finding a derivation of function: $\ln(x+y)$ here it is: 1.000 $2.000 \cdot$ x + y15 step: finding a derivation of function: xhere it is: 1.000 16 step: finding a derivation of function: $x^{2.000}$ here it is: $2.000 \cdot x$ 17 step: finding a derivation of function: 3.000here it is: 0.00018 step: finding a derivation of function: $3.000 \cdot x^{2.000}$ here it is: $3.000 \cdot 2.000 \cdot x$ 19 step: finding a derivation of function: $3.000 \cdot x^{2.000} \cdot \ln{(x+y)}$ here it is: $3.000 \cdot 2.000 \cdot x \cdot \ln (x +$ 20 step: finding a derivation of function: $3.000 \cdot x^{2.000} \cdot \ln{(x+y)}$ here it is: $3.000 \cdot 2.000 \cdot x \cdot \ln\left(x + \frac{1}{2}\right)$ Calculating the 3 derivation of the expression: 1 step: finding a derivation of function: yhere it is: 1.000

10 step: finding a deriva-

tion of funcx + y3

2 step: finding a derivation of func-

x

1.000

3 step: finding a deriva-

here it is:

tion:

tion:

here it is: 2.000 4 step: finding a derivation of function: 1.000 here it is: 0.000 5 step: finding a derivation of function: 1.000 $\overline{x+y}$ here it is: $(-1.000) \cdot 2.000$ $(x+y)^{2.000}$ 6 step: finding a derivation of function: 2.000 here it is: 0.000 7 step: finding a derivation of function: $2.000 \cdot \frac{1.000}{}$ here it is: $2.000 \cdot \frac{(-2.000)}{(x+y)^{2.000}}$ 8 step: finding a derivation of function: xhere it is: 1.000 9 step: finding a deriva-tion of function: $x^{2.000}$ here it is: $2.000 \cdot x$ 10 step: finding a derivation of func-3.000here it is: 0.000 11 step: finding a derivation of function: $3.000 \cdot x^{2.000}$ here it is: $3.000 \cdot 2.000 \cdot x$ 12 step: finding a derivation of function: $3.000 \cdot x^{2.000} \cdot 2.000 \cdot$ here it is: $3.000 \cdot 2.000 \cdot x \cdot 2.000$ 13 step: finding a derivation of function:xhere it is: 1.000 14 step: finding a derivation of function: $x^{3.000}$ here it is: $3.000 \cdot x^{2.000}$ 15 step: finding a derivation of function: yhere it is: 1.000 16 step: finding a derivation of function: xhere it is: 1.000 17 step: finding a derivation of function: (x+y)4

1 x here it is: 2.000 18 step: finding a derivation of function: $\left(x+y\right)^{2.000}$ here it is: $2.000 \cdot 2.000 \cdot (x+y)$ 19 step: finding a derivation of function: (-2.000)here it is: 0.000 20 step: finding a derivation of function: $\frac{(-2.000)}{(x+y)^{2.000}}$ here it is: $(-1.000) \cdot (-2.000) \cdot 2.$ $((x+y)^{2.0}$ 21 step: finding a derivation of function: 2.000 here it is: 0.000 22 step: finding a derivation of function: $2.000 \cdot \frac{(-2.000)}{(x+y)^{2.000}}$ here it is: $2.000 \cdot \frac{(-1.000) \cdot (-2.00)}{(-1.000) \cdot (-2.000)}$ ((x23 step: finding a derivation of function: $2.000 \cdot \frac{(-2.000)}{(x+y)^{2.000}} \cdot x^3$ here it is: $2.000 \cdot \frac{(-1.000) \cdot (-2.00)}{}$ ((x24 step: finding a derivation of function: $\frac{(-2.000)}{(x+y)^{2.000}} \cdot x^3$ $2.000 \cdot$ here it is: $2.000 \cdot \frac{(-1.000) \cdot (-2.00)}{(-1.000) \cdot (-2.000)}$ ((x25 step: finding a derivation of function: xhere it is: 1.000 26 step: finding a derivation of function: $x^{2.000}$ here it is: $2.000 \cdot x$ 27 step: finding a derivation of function: 3.000 here it is: 0.00028 step: finding a derivation of function: $3.000 \cdot x^{2.000}$ here it is: $3.000 \cdot 2.000 \cdot x$ 29 step: finding a derivation of function: yhere it is: 1.000 30 step: finding a derivation of function: here it is: 1.000 5

tion of function: x + yhere it is: 2.000 32 step: finding a derivation of function: 1.000

31 step: finding a deriva-

here it is: 0.000 33 step: finding a derivation of func-

tion: 1.000 x + yhere it is: $(-1.000) \cdot 2.000$ $(x+y)^{2.000}$

34 step: finding a derivation of function:

2.000 here it is:

0.000

35 step: finding a derivation of func-

tion:

1.000 $2.000 \cdot$ x + y

here it is:

 $2.000 \cdot \frac{(-2.000)}{(x+y)^{2.000}}$ 36 step: find-

ing a deriva-

tion of function: $2.000 \cdot \frac{1.000}{x+y} \cdot 3.000 \cdot x$

here it is: $2.000 \cdot \frac{(-2.000)}{(x+y)^{2.000}} \cdot 3.00$

37 step: finding a derivation of func-

tion:yhere it is:

1.000 38 step: finding a derivation of func-

tion:xhere it is: 1.000

39 step: finding a derivation of function:

(x+y)

here it is: 2.000

40 step: find-

ing a derivation of function: $\ln\left(x+y\right)$

here it is:

2.000 · 1.000 x + y

41 step: finding a derivation of function:

x

here it is:

1.000 42 step: finding a derivation of function:

2.000 here it is: 0.00043 step: find-

ing a derivation of function: $2.000 \cdot x$

here it is:

2.000

44 step: finding a derivation of func-3.000

tion: here it is:

0.000

6

```
(x = 3.000, y = 2.000)IT'S
VALUE = 49.152
!!!
```

45 step: finding a derivation of func-

 $3.000 \cdot 2.000 \cdot x$

here it is:

6.000

46 step: finding a derivation of func-

 $3.000 \cdot 2.000 \cdot x \cdot \ln\left(x + \frac{1}{2}\right)$

 $6.000 \cdot \ln(x+y) + 2.00$

 $3.000 \cdot 2.000 \cdot x \cdot \ln\left(x + \frac{1}{2}\right)$

 $6.000 \cdot \ln(x+y) + 2.00$

 $3.000 \cdot 2.000 \cdot x \cdot \ln\left(x + \frac{1}{2}\right)$

 $6.000 \cdot \ln(x+y) + 2.00$

 $6.000 \cdot \ln(x+y) + 2.00$

Partial deriva-

 $3.000 \cdot x^{2.000} \cdot \ln{(x+2)}$

VALUE = 48.854824

Partial deriva-

1.000

tion of the expression on the variable 'y':

 $27.000 \cdot \frac{}{3.000 +}$

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

VALUE = 5.400000

 $(3.000 \cdot x^{2.000} \cdot \ln{(x \cdot x^{2.000} \cdot x^{2.000})})$

Full deriva-

IN THE POINT

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

 $x^{3.000} \cdot \ln\left(x + 2.000\right)$

Tangent equa-

Maklorens formula for x near

IN THE POINT (x = 3.000, $= 2.000) \, \text{IT'S}$

tion of the expression on the 'x':

variable

tion:

tion:

here it is:

47 step: finding a derivation of func-

tion:

here it is:

48 step: finding a derivation of func-

tion:

here it is:

Finally... The 3 derivation of the expression:

BRITISH SCI-ENTISTS WERE SHOCKED, WHEN THEY COUNT THE 3 DERIVA TION OF THIS EXPRESSION!!! IN THE POINT (x = 3.000, y)= 2.000)IT'S VALUE = 21.753

!!!

!!!

!!!

tion: