1 Differentiator

wazzzuuuup, shut up and take my derivative of this function:

$$f(x) = (sin(15x))^3 + 5 \cdot cosx^3$$

Znamenskaya forbade doing this, but:

$$(x^3)' = 3 \cdot x^{3-1} * 1$$

Ostap once said:

$$(cosx^3)' = (-1) \cdot sinx^3 * 3 \cdot x^{3-1} \cdot 1$$

obviously, the derivative of multiplication looks like this:

$$(5 * cosx^3)' = 0 \cdot cosx^3 + 5 \cdot (-1) \cdot sinx^3 \cdot 3 \cdot x^{3-1} \cdot 1$$

obviously, the derivative of multiplication looks like this:

$$(15 * x)' = 0 \cdot x + 15 \cdot 1$$

every kindergartener in the USSR knew that:

$$(sin(15x))' = cos(15x) * (0 \cdot x + 15 \cdot 1)$$

Znamenskaya forbade doing this, but:

$$((sin(15x))^3)' = 3 \cdot (sin(15x))^{3-1} * cos(15x) \cdot (0 \cdot x + 15 \cdot 1)$$

the derivative of the sum can be represented as follows:

$$((sin(15x))^3 + 5 \cdot cosx^3)' = 3 \cdot (sin(15x))^{3-1} \cdot cos(15x) \cdot (0 \cdot x + 15 \cdot 1) + 0 \cdot cosx^3 + 5 \cdot (-1) \cdot sinx^3 \cdot 3 \cdot x^{3-}$$

with all simplification

$$((sin(15x))^3 + 5 \cdot cosx^3)' = 3 \cdot (sin(15x))^2 \cdot cos(15x) \cdot 15 + 5 \cdot (-1) \cdot sinx^3 \cdot 3 \cdot x^2$$