

“What to say in front of the blackboard” – a brief tutorial

Exercise: Calculate the derivative of $(x^2 + 12x + 7) * \ln(x^2 + 12x + 7)$

$$[(x^2 + 12x + 7) * \ln(x^2 + 12x + 7)]' =$$

↑
*the derivative of x square plus twelve x
plus seven multiplied by the natural logarithm
of x square plus twelve x plus seven*

$$(2x + 12) * \ln(x^2 + 12x + 7)$$

↑
*using the product rule we obtain:
two x plus twelve times the natural logarithm
of x square plus twelve x plus seven, plus...*

+

$$(x^2 + 12x + 7) * (2x + 12) / (x^2 + 12x + 7)$$

↑
*...x square plus twelve x plus seven times two x
plus twelve divided by x square plus twelve x
plus seven*

Author: Maciej Kowalski

I year student/ EPM