

Egyváltozós analízis differenciálszámítás gyakorló feladatok

$$(1) \quad (2 + x - x^2)' =$$

$$(2) \quad (a^5 + 5a^3x^2 - x^5)' =$$

$$(3) \quad ((x - a)(x - b))' =$$

$$(4) \quad \left(\frac{2x}{1 - x^2} \right)' =$$

$$(5) \quad \left(\sqrt{x + \sqrt{x}} \right)' =$$

$$(6) \quad (x + \sqrt{x} + \sqrt[3]{x})' =$$

$$(7) \quad (\cos 2x - 2 \sin x)' =$$

$$(8) \quad ((x \sin \alpha + \cos \alpha)(x \cos \alpha - \sin \alpha))' =$$

$$(9) \quad \left(\frac{\sin^2 x}{\sin x^2} \right)' =$$

$$(10) \quad (e^{-x^2})' =$$

$$(11) \quad (\ln \ln \ln x)' =$$

$$(12) \quad (\ln \operatorname{tg} \frac{x}{2})' =$$

$$(13) \quad \left(\frac{\sin(2x)}{\sin(2x) + \cos(2x)} \right)' =$$

$$(14) \quad \left(\sqrt{\ln(\cos(x+1))} \right)' =$$

$$(15) \quad ((1-x) \operatorname{arc} \operatorname{tg}(x^2))' =$$

$$(16) \quad \left(\operatorname{arc} \operatorname{tg} \left(\frac{1}{x} \right) \right)' =$$

$$(17) \quad \left(\sqrt[3]{\sqrt{x^3} \sqrt{x}} \right)' =$$

$$(18) \quad (x^3 e^{\sin(3x)})' =$$

$$(19) \quad \left(\sqrt[4]{\ln(x+2) + 4 \cos \left(\frac{x}{2} \right)} \right)' =$$

$$(20) \quad \left(\ln \left(\frac{x}{3} \right)^2 \right)' =$$

$$(21) \quad \left(\ln^2 \left(\frac{x}{3} \right) \right)' =$$

$$(22) \quad \left(\frac{1}{\sqrt{x}e^{-x^2}} \right)' =$$