

Calcolare le seguenti derivate di funzioni reali (da considerare definite nel loro *dominio naturale*):

$$D(3x^5 + 2x^3 - 4x^2 + 5) = 15x^4 + 6x^2 - 8x$$

$$D(2x^6 - 3x^5 + 7x^2 - 16x) = 12x^5 - 15x^4 + 14x - 16$$

$$D\left(\frac{\cos x}{x + \operatorname{sen} x}\right) = -\frac{x \operatorname{sen} x + \cos x + 1}{(x + \operatorname{sen} x)^2}$$

$$D\left(\frac{\cos x}{x + e^x}\right) = -\frac{(x + e^x) \operatorname{sen} x + (e^x + 1) \cos x}{(x + e^x)^2}$$

$$D(\cos^5 x) = -5 \cos^4 x \operatorname{sen} x$$

$$D(\operatorname{sen}(x^2)) = 2x \cos(x^2)$$

$$D(\log(\log x)) = \frac{1}{x \log x}$$

$$D(\log(3x^2 + 5x - 2)) = \frac{6x + 5}{3x^2 + 5x - 2}$$

$$D(\log(5x^2 + 4x - 7)) = \frac{10x + 4}{5x^2 + 4x - 7}$$

$$D\left(e^{\frac{2x+3}{4x+5}}\right) = -\frac{2e^{\frac{2x+3}{4x+5}}}{(4x+5)^2}$$

$$D\left(5^{\frac{2x+3}{x+3}}\right) = \frac{3 \cdot 5^{\frac{2x+3}{x+3}} \log 5}{(x+3)^2}$$

$$D(-x^2 + 2x^2 \log x) = 4x \log x$$

$$D((7x^2 + x^5) \log(2 + e^x)) = (14x + 5x^4) \log(2 + e^x) + (7x^2 + x^5) \frac{e^x}{2 + e^x}$$

$$D(\sqrt{\cos x + 2}) = \frac{-\operatorname{sen} x}{2\sqrt{\cos x + 2}}$$

$$D\left(\frac{1}{x^2 + \log 2}\right) = \frac{-2x}{(x^2 + \log 2)^2}$$