DERIVATE NOTEVOLI

Monday, December 6, 2021 1:44 PM

COSTANTE

$f(x) = \text{costante}$ $\qquad$ $f'(x) = 0$

x

$f(x) = x$ $\qquad$ $f'(x) = 1$

POTENZA

$f(x) = x^m, \; m \in \mathbb{R}$ $\qquad$ $f'(x) = m x^{m-1}$

$f(x) = \sqrt[m]{x^m}$ $\qquad$ $f'(x) = \frac{m}{m} x^{\frac{m}{m}-1}$

$f(x) = \frac{1}{x^m} = x^{-m}$ $\qquad$ $f'(x) = -m x^{-m-1}$

ESPONENZIALE

$f(x) = a^x$ $\qquad$ $f'(x) = a^x \log(a)$

ESPONENZIALE CON BASE e

$f(x) = e^x$ $\qquad$ $f'(x) = e^x \log(e) = e^x$

LOGARITMO

$f(x) = \log_a(x)$ $\qquad$ $f'(x) = \frac{1}{x \log(a)}$

LOGARITMO NATURALE

$f(x) = \log(x)$ $\qquad f'(x) = \frac{1}{x}$

VALORE ASSOLUTO

$f(x) = |x|$ $\qquad f'(x) = \frac{|x|}{x}$

SENO

$f(x) = \sin x$ $\qquad f'(x) = \cos x$

COSENO

$f(x) = \cos x$ $\qquad f'(x) = -\sin x$

TANGENTE

$f(x) = \tan x$ $\qquad f'(x) = \frac{1}{\cos^2 x} = 1 + \tan^2 x$

COTANGENTE

$f(x) = \operatorname{cotan} x$ $\qquad f'(x) = -\frac{1}{\sin^2 x}$

ARCOSENO

$f(x) = \arcsin x$ $\qquad f'(x) = \frac{1}{\sqrt{1-x^2}}$

ARCOCOSENO

$f(x) = \arccos x$ $\qquad f'(x) = -\frac{1}{\sqrt{1-x^2}}$

ARCOTANGENTE

$f(x) = \arctan x$ $\qquad f'(x) = \frac{1}{1+x^2}$

ARCOTANGENTE

$$f(x) = \operatorname{arccotan} x \qquad f'(x) = -\frac{1}{1+x^2}$$