Tabella delle derivate fondamentali e regole di derivazione

$$\frac{d}{dx}\left(x^p\right) = px^{p-1}, \qquad \frac{d}{dx}\left(e^x\right) = e^x, \qquad \frac{d}{dx}\left(a^x\right) = a^x \log a$$

$$\frac{d}{dx}\left(\log x\right) = \frac{1}{x}, \qquad \frac{d}{dx}\left(\log_a x\right) = \frac{\log_a e}{x}$$

$$\frac{d}{dx}\left(\sin x\right) = \cos x, \qquad \frac{d}{dx}\left(\cos x\right) = -\sin x$$

$$\frac{d}{dx}\left(\tan x\right) = \frac{1}{\cos^2 x} = 1 + \tan^2 x$$

$$\frac{d}{dx}\left(\arcsin x\right) = \frac{1}{\sqrt{1-x^2}} \quad (|x| < 1), \qquad \frac{d}{dx}\left(\arccos x\right) = -\frac{1}{\sqrt{1-x^2}} \quad (|x| < 1)$$

$$\frac{d}{dx}\left(\arctan x\right) = \frac{1}{1+x^2}$$

$$\frac{d}{dx}\left(\sinh\right) = \cosh x, \qquad \frac{d}{dx}\left(\cosh\right) = \sinh x, \qquad \frac{d}{dx}\left(\tanh\right) = \frac{1}{\cosh^2 x}$$

$$\frac{d}{dx}\, c = 0, \qquad \frac{d}{dx}\, cf(x) = cf'(x)$$

$$\frac{d}{dx}\left[f(x) \pm g(x)\right] = f'(x) \pm g'(x), \qquad \frac{d}{dx}\left[f(x)g(x)\right] = f'(x)g(x) + f(x)g'(x)$$

$$\frac{d}{dx}\, \frac{1}{f(x)} = -\frac{f'(x)}{[f(x)]^2}, \qquad \frac{d}{dx}\, \frac{f(x)}{g(x)} = \frac{f'(x)g(x) - f(x)g'(x)}{[g(x)]^2}$$

$$\frac{d}{dx}\, f(g(x)) = f'(g(x))\, g'(x)$$