

$$Dk = 0$$

$$Dx^{\alpha} = \alpha x^{\alpha-1}$$

$$Da^x = a^x \log a$$

$$D \log_a x = \frac{1}{x} \log_a e$$

$$D \sin x = \cos x$$

;

$$D \sinh x = \cosh x$$

$$D \cos x = -\sin x$$

;

$$D \cosh x = \sinh x$$

$$D \tan x = \frac{1}{\cos^2 x}$$

;

$$D \tanh x = \frac{1}{\cosh^2 x}$$

$$D \arcsin x = \begin{cases} \frac{1}{\sqrt{1-x^2}} & \text{SE } x \in]-1, 1[\\ +\infty & \text{SE } x = \pm 1 \end{cases}$$

$$D \arccos x = \begin{cases} -\frac{1}{\sqrt{1-x^2}} & \text{SE } x \in]-1, 1[\\ -\infty & \text{SE } x = \pm 1 \end{cases}$$

$$D \arctan x = \frac{1}{1+x^2}$$

;

$$D \operatorname{sett} \tanh x = \frac{1}{1-x^2}$$

$$D \operatorname{sett} \sinh x = \frac{1}{\sqrt{1+x^2}} ; \quad D \operatorname{sett} \cosh x = \begin{cases} \frac{1}{\sqrt{x^2-1}} & \text{SE }]1, +\infty[\\ +\infty & \text{SE } x = 1 \end{cases}$$

$$D[f(x)]^{g(x)} = [f(x)]^{g(x)} \left[g'(x) \log f(x) + g(x) \frac{f'(x)}{f(x)} \right]$$

$$D \log_{g(x)} f(x) = D \frac{\log f(x)}{\log g(x)}$$