

$$\bullet \frac{d}{dx} k \cdot f(x) = k f'(x)$$

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

$$\bullet \frac{d}{dx} (f(x) \cdot g(x)) = f'(x)g(x) + f(x)g'(x) \text{ Leibniz.}$$

$$\bullet \frac{d}{dx} \left(\frac{f(x)}{g(x)} \right) = \frac{f'(x)g(x) - f(x)g'(x)}{g(x)^2}$$

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

↳ Inre derivata.

$$\text{"Minnesregel": } \frac{df}{dx} = \frac{df}{dg} \frac{dg}{dx} \text{"}$$

$$\bullet \frac{d}{dx} \ln x = \frac{1}{x}$$

$$\bullet \frac{d}{dx} e^x = e^x$$

$$\bullet \frac{d}{dx} \sin x = \cos x$$

$$\bullet \frac{d}{dx} \cos x = -\sin x$$

$$\bullet \frac{d}{dx} \tan x = \frac{1}{\cos^2 x} = 1 + \tan^2 x$$

$$\bullet \frac{d}{dx} \cot x = -\frac{1}{\sin^2 x} = -1 - \cot^2 x$$

$$\bullet \frac{d}{dx} \arcsin x = \frac{1}{\sqrt{1-x^2}}$$

$$\bullet \frac{d}{dx} \arccos x = \frac{1}{-\sqrt{1-x^2}}$$

$$\bullet \frac{d}{dx} \arctan x = \frac{1}{1+x^2}$$