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- $\frac{d}{dx} c = 0$ for each constant c
 - $\frac{d}{dx} x^\alpha = \alpha x^{\alpha-1}$ for every real number α
 - $\frac{d}{dx} e^x = e^x$
 - $\frac{d}{dx} \ln x = \frac{1}{x}$
 - $\frac{d}{dx} \cos x = -\sin x$
 - $\frac{d}{dx} \sin x = \cos x$
 - $\frac{d}{dx} \tan x = \sec^2 x$
 - $\frac{d}{dx} \cot x = -\csc^2 x$
 - $\frac{d}{dx} \sec x = \sec x \tan x$
 - $\frac{d}{dx} \csc x = -\csc x \cot x$

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- $\frac{d}{dx} b^x = b^x \ln b$ for all positive constants b
 - $\frac{d}{dx} \arccos x = -\frac{1}{\sqrt{1-x^2}}$
 - $\frac{d}{dx} \arcsin x = \frac{1}{\sqrt{1-x^2}}$
 - $\frac{d}{dx} \arctan x = \frac{1}{1+x^2}$

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- $(f + g)' = f' + g'$ and $(cf)' = c(f')$ [linearity]
 - $(fg)' = f'g + fg'$ [product or Leibniz rule]
 - $\left(\frac{f}{g}\right)' = \frac{f'g - fg'}{g^2}$ [quotient rule]
 - $(f \circ g)'(x) = f'(g(x))g'(x)$ [chain rule]