# Tabla de Derivadas

| Función | Derivada | Función | Derivada |
|---|---|---|---|
| $y = k$ | $y' = 0$ | – | – |
| $y = x$ | $y' = 1$ | – | – |
| $y = x^2$ | $y' = 2x$ | $y = f(x)^2$ | $y' = 2f(x)f'(x)$ |
| $y = x^n$ | $y' = nx^{n-1}$ | $y = f(x)^n$ | $y' = nf(x)^{n-1}f'(x)$ |
| $y = \dfrac{1}{x}$ | $y' = -\dfrac{1}{x^2}$ | $y = \dfrac{1}{f(x)}$ | $y' = -\dfrac{f'(x)}{f(x)^2}$ |
| $y = \dfrac{1}{x^n}$ | $y' = \dfrac{-n}{x^{n+1}}$ | $y = \dfrac{1}{f(x)^n}$ | $y' = -\dfrac{nf'(x)}{f(x)^{n+1}}$ |
| $y = \sqrt{x}$ | $y' = \dfrac{1}{2\sqrt{x}}$ | $y = \sqrt{f(x)}$ | $y' = \dfrac{f'(x)}{2\sqrt{f(x)}}$ |
| $y = \sqrt[3]{x}$ | $y' = \dfrac{1}{3\sqrt[3]{x^2}}$ | $y = \sqrt[3]{f(x)}$ | $y' = \dfrac{f'(x)}{3\sqrt[3]{f(x)^2}}$ |
| $y = \sqrt[n]{x}$ | $y' = \dfrac{1}{n\sqrt[n]{x^{n-1}}}$ | $y = \sqrt[n]{f(x)}$ | $y' = \dfrac{f'(x)}{n\sqrt[n]{f(x)^{n-1}}}$ |
| $y = a^x$ | $y' = a^x \ln a$ | $y = a^{f(x)}$ | $y' = a^{f(x)} \ln a f'(x)$ |
| $y = e^x$ | $y' = e^x$ | $y = e^{f(x)}$ | $y' = e^{f(x)} f'(x)$ |
| $y = \log_a x$ | $y' = \dfrac{1}{x \ln a}$ | $y = \log_a f(x)$ | $y' = \dfrac{f'(x)}{f(x) \ln a}$ |
| $y = \ln x$ | $y' = \dfrac{1}{x}$ | $y = \ln f(x)$ | $y' = \dfrac{f'(x)}{f(x)}$ |
| $y = \operatorname{sen} x$ | $y' = \cos x$ | $y = \operatorname{sen} f(x)$ | $y' = f'(x) \cos f(x)$ |
| $y = \cos x$ | $y' = -\operatorname{sen} x$ | $y = \cos f(x)$ | $y' = -f'(x) \operatorname{sen} f(x)$ |
| $y = \operatorname{tg} x$ | $y' = 1 + \operatorname{tg}^2 x = \dfrac{1}{\cos^2 x}$ | $y = \operatorname{tg} f(x)$ | $y' = (1 + \operatorname{tg}^2 f(x))f'(x) = \dfrac{f'(x)}{\cos^2 f(x)}$ |
| $y = \operatorname{cotg} x$ | $y' = -1 - \operatorname{cotg}^2 x = \dfrac{-1}{\operatorname{sen}^2 x}$ | $y = \operatorname{cotg} f(x)$ | $y' = (-1 - \operatorname{cotg}^2 f(x))f'(x) = \dfrac{-f'(x)}{\operatorname{sen}^2 f(x)}$ |
| $y = \operatorname{arc\,sen} x$ | $y' = \dfrac{1}{\sqrt{1-x^2}}$ | $y = \operatorname{arc\,sen} f(x)$ | $y' = \dfrac{f'(x)}{\sqrt{1-f(x)^2}}$ |
| $y = \arccos x$ | $y' = \dfrac{-1}{\sqrt{1-x^2}}$ | $y = \arccos f(x)$ | $y' = \dfrac{-f'(x)}{\sqrt{1-f(x)^2}}$ |
| $y = \operatorname{arc\,tg} x$ | $y' = \dfrac{1}{1+x^2}$ | $y = \operatorname{arc\,tg} f(x)$ | $y' = \dfrac{f'(x)}{1+f(x)^2}$ |