

- 1  $\frac{d}{dx}(c) = 0$
- 2  $\frac{d}{dx}[c f(x)] = c f'(x)$
- 3  $\frac{d}{dx}[f(x) + g(x)] = f'(x) + g'(x)$
- 4  $\frac{d}{dx}[f(x) - g(x)] = f'(x) - g'(x)$
- 5  $\frac{d}{dx}[f(x) g(x)] = f'(x) g(x) + f(x) g'(x)$
- 6  $\frac{d}{dx} \left[ \frac{f(x)}{g(x)} \right] = \frac{f'(x) g(x) - f(x) g'(x)}{[g(x)]^2}$
- 7  $\frac{d}{dx} f(g(x)) = f'(g(x)) g'(x)$
- 8  $\frac{d}{dx}(x^n) = n x^{n-1}$
- 9  $\frac{d}{dx}(e^x) = e^x$
- 10  $\frac{d}{dx}(a^x) = a^x \ln(a)$
- 11  $\frac{d}{dx} \ln|x| = \frac{1}{x}$
- 12  $\frac{d}{dx} \log_a(x) = \frac{1}{x \ln(a)}$
- 13  $\frac{d}{dx} \text{sen}(x) = \text{cos}(x)$
- 14  $\frac{d}{dx} \text{cos}(x) = -\text{sen}(x)$
- 15  $\frac{d}{dx} \text{tg}(x) = \text{sec}^2(x)$
- 16  $\frac{d}{dx} \text{cos sec}(x) = -\text{cos sec}(x) \text{cot}(x)$
- 17  $\frac{d}{dx} \text{sec}(x) = \text{sec}(x) \text{tg}(x)$
- 18  $\frac{d}{dx} \text{cot g}(x) = -\text{cos sec}^2(x)$
- 19  $\frac{d}{dx} \text{arc sen}(x) = \frac{1}{\sqrt{1-x^2}}$
- 20  $\frac{d}{dx} \text{arc cos}(x) = -\frac{1}{\sqrt{1-x^2}}$
- 21  $\frac{d}{dx} \text{arc tg}(x) = \frac{1}{1+x^2}$
- 22  $\frac{d}{dx} \text{arc cos sec}(x) = -\frac{1}{x\sqrt{x^2-1}}$
- 23  $\frac{d}{dx} \text{arc sec}(x) = \frac{1}{x\sqrt{x^2-1}}$
- 24  $\frac{d}{dx} \text{arc cot g}(x) = -\frac{1}{1+x^2}$
- 25  $\frac{d}{dx} \text{sinh}(x) = \text{cosh}(x)$
- 26  $\frac{d}{dx} \text{cosh}(x) = \text{sinh}(x)$
- 27  $\frac{d}{dx} \text{tgh}(x) = \text{sech}^2(x)$
- 28  $\frac{d}{dx} \text{cos sech}(x) = -\text{cos sech}(x) \text{cot gh}(x)$
- 29  $\frac{d}{dx} \text{sech}(x) = -\text{sech}(x) \text{tgh}(x)$
- 30  $\frac{d}{dx} \text{cot gh}(x) = -\text{cos sech}^2(x)$
- 31  $\frac{d}{dx} \text{arc sinh}(x) = \frac{1}{\sqrt{1+x^2}}$
- 32  $\frac{d}{dx} \text{arc cosh}(x) = \frac{1}{\sqrt{x^2-1}}$
- 33  $\frac{d}{dx} \text{arc tgh}(x) = \frac{1}{1-x^2}$
- 34  $\frac{d}{dx} \text{arc cos sech}(x) = -\frac{1}{|x|\sqrt{x^2+1}}$
- 35  $\frac{d}{dx} \text{arc sech}(x) = -\frac{1}{x\sqrt{1-x^2}}$
- 36  $\frac{d}{dx} \text{arc cot gh}(x) = \frac{1}{1-x^2}$