

Fórmulas de Derivadas

Derivadas algebraicas

$$1. \frac{d}{dx} c = 0$$

$$2. \frac{d}{dx} x = 1$$

$$3. \frac{d}{dx} (cx) = c$$

$$4. \frac{d}{dx} x^n = nx^{n-1}$$

$$5. \frac{d}{dx} u^n = nu^{n-1} \frac{du}{dx}$$

$$6. \frac{d}{dx} \sqrt{u} = \frac{1}{2\sqrt{u}} \frac{du}{dx}$$

$$7. \frac{d}{dx} (uv) = uv' + vu'$$

$$8. \frac{d}{dx} \left(\frac{u}{v} \right) = \frac{vu' - uv'}{v^2}$$

Trigonométricas

$$9. \frac{d}{dx} \sin u = \cos u \frac{du}{dx}$$

$$10. \frac{d}{dx} \cos u = -\sin u \frac{du}{dx}$$

$$11. \frac{d}{dx} \tan u = \sec^2 u \frac{du}{dx}$$

$$12. \frac{d}{dx} \cot u = -\csc^2 u \frac{du}{dx}$$

$$13. \frac{d}{dx} \sec u = \sec u \tan u \frac{du}{dx}$$

$$14. \frac{d}{dx} \csc u = -\csc u \cot u \frac{du}{dx}$$

Inversas trigonométricas

$$15. \frac{d}{dx} \arcsin u = \frac{1}{\sqrt{1-u^2}} \cdot \frac{du}{dx}$$

$$16. \frac{d}{dx} \arccos u = -\frac{1}{\sqrt{1-u^2}} \cdot \frac{du}{dx}$$

$$17. \frac{d}{dx} \arctan u = \frac{1}{1+u^2} \cdot \frac{du}{dx}$$

$$18. \frac{d}{dx} \operatorname{arccot} u = -\frac{1}{1+u^2} \cdot \frac{du}{dx}$$

$$19. \frac{d}{dx} \operatorname{arcsec} u = \frac{1}{u\sqrt{u^2-1}} \cdot \frac{du}{dx}$$

$$20. \frac{d}{dx} \operatorname{arccsc} u = -\frac{1}{u\sqrt{u^2-1}} \cdot \frac{du}{dx}$$

Logarítmicas

$$21. \frac{d}{dx} \ln u = \frac{1}{u} \cdot \frac{du}{dx}$$

$$22. \frac{d}{dx} \log_b u = \frac{\log_b e}{u} \cdot \frac{du}{dx}$$

Exponenciales

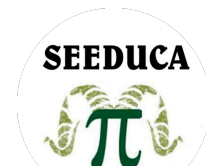
$$23. \frac{d}{dx} e^u = e^u \cdot \frac{du}{dx}$$

$$24. \frac{d}{dx} a^u = a^u \ln a \cdot \frac{du}{dx}$$

$$25. \frac{d}{dx} u^v = v \cdot u^{v-1} \frac{du}{dx} + \ln u \cdot u^v \frac{dv}{dx}$$

Regla de la cadena

$$\frac{d}{dx} (g \circ f) = \frac{d}{dx} g(f(x)) = \frac{dy}{du} \cdot \frac{du}{dx}$$



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