TAULA DE DERIVADES

1. $y = k \quad y' = 0$

2. $y = x \quad y' = 1$

3. $y = kx \quad y' = k$

4. $y = kx^n \quad y' = knx^{n-1}$

5. $y = \sqrt[n]{x} \quad y' = \dfrac{1}{n\sqrt[n]{x^{n-1}}}$

6. $y = a^x \quad y' = a^x \ln a$

7. $y = e^x \quad y' = e^x$

8. $y = \log_a x \quad y' = \dfrac{1}{x}\log_a e$

9. $y = \ln x \quad y' = \dfrac{1}{x}$

10. $y = \sin x \quad y' = \cos x$

11. $y = \cos x \quad y' = -\sin x$

12. $y = \tan x \quad y' = \dfrac{1}{\cos^2 x} = 1 + \tan^2 x$

13. $y = \cot x \quad y' = \dfrac{-1}{\sin^2 x} = -1 - \cot^2 x$

14. $y = \arcsin x \quad y' = \dfrac{1}{\sqrt{1-x^2}}$

15. $y = \arccos x \quad y' = \dfrac{-1}{\sqrt{1-x^2}}$

16. $y = \arctan x \quad y' = \dfrac{1}{1+x^2}$

17. $y = \operatorname{arc}\cot x \quad y' = \dfrac{-1}{1+x^2}$

Propietats

18. $y = f(x) \pm g(x) \quad y' = f'(x) \pm g'(x)$

19. $y = k \cdot f(x) \quad y' = k \cdot f'(x)$

20. $y = f(x) \cdot g(x) \quad y' = f'(x) \cdot g(x) + f(x) \cdot g'(x)$

21. $y = \dfrac{f(x)}{g(x)} \quad y' = \dfrac{f'(x) \cdot g(x) - f(x) \cdot g'(x)}{[g(x)]^2}$

Regla de la cadena

22. $y = f(g(x)) \quad y' = f'(g(x)) \cdot g'(x)$