

Tabela de Derivadas

FUNÇÃO	DERIVADA
1. $f(x) = x^n$	1. $f'(x) = nx^{n-1}$
2. $f(x) = \text{sen}(x)$	2. $f'(x) = \text{cos}(x)$
3. $f(x) = \text{cos}(x)$	3. $f'(x) = -\text{sen}(x)$
4. $f(x) = \text{tan}(x)$	4. $f'(x) = \text{sec}^2(x)$
5. $f(x) = e^x$	5. $f'(x) = e^x$
6. $f(x) = \ln(x)$	6. $f'(x) = \frac{1}{x}$
7. $f(x) = k$	7. $f'(x) = 0$
8. $f(x) = a^x$	8. $f'(x) = a^x \ln(a)$
9. $f(x) = \log_a x$	9. $f'(x) = \frac{1}{x \ln(a)}$
10. $f(x) = \text{cotg}(x)$	10. $f'(x) = -\text{cosec}^2(x)$
11. $f(x) = \text{sec}(x)$	11. $f'(x) = \text{sec}(x) \text{tan}(x)$
12. $f(x) = \text{cosec}(x)$	12. $f'(x) = -\text{cosec}(x) \text{cotg}(x)$
13. $f(x) = \arcsen(x)$	13. $f'(x) = \frac{1}{\sqrt{1-x^2}}$
14. $f(x) = \arccos(x)$	14. $f'(x) = -\frac{1}{\sqrt{1-x^2}}$
15. $f(x) = \arctan(x)$	15. $f'(x) = \frac{1}{1+x^2}$
16. $f(x) = \text{arccotg}(x)$	16. $f'(x) = -\frac{1}{1+x^2}$
17. $f(x) = \text{arcsec}(x), x \geq 1$	17. $f'(x) = \frac{1}{ x \sqrt{x^2-1}}, x > 1$
18. $f(x) = \text{arccosec}(x), x \geq 1$	18. $f'(x) = -\frac{1}{ x \sqrt{x^2-1}}, x > 1$
REGRA DO PRODUTO	
$f(x) = u(x) \cdot v(x)$	$f'(x) = u'(x) \cdot v(x) + u(x) \cdot v'(x)$
REGRA DO QUOCIENTE	
$f(x) = \frac{u(x)}{v(x)}$	$f'(x) = \frac{u'(x) \cdot v(x) - v'(x) \cdot u(x)}{v(x)^2}$
REGRA DA CADEIA	
$f(x) = u(v(x))$	$f'(x) = u'(v(x)) \cdot v'(x)$