

## Tabela de Derivadas onde $u$ e $v$ são funções

1) $y = c \Rightarrow y' = 0$ , ( $c$ , constante arbitrária)	23) $y = \operatorname{arccotg} u \Rightarrow y' = -\frac{u'}{1+u^2}$
2) $y = u + v \Rightarrow y' = u' + v'$	24) $y = \operatorname{arcsec} u \Rightarrow y' = \frac{u'}{u \cdot \sqrt{u^2 - 1}}$
3) $y = cu \Rightarrow y' = cu'$ , ( $c$ , constante arbitrária)	25) $y = \operatorname{arccossec} u \Rightarrow y' = -\frac{u'}{u \cdot \sqrt{u^2 - 1}}$
4) $y = uv \Rightarrow y' = u'v + uv'$	26) $y = \sinh u \Rightarrow y' = \cosh u \cdot u'$
5) $y = uvw \Rightarrow y' = u'vw + v'uw + uvw'$	27) $y = \cosh u \Rightarrow y' = \sinh u \cdot u'$
6) $y = u^n \Rightarrow y' = nu^{n-1} \cdot u'$	28) $y = \operatorname{tgh} u \Rightarrow y' = \operatorname{sech}^2 u \cdot u'$
7) $y = \frac{u}{v} \Rightarrow y' = \frac{u'v - uv'}{v^2}$	29) $y = \operatorname{cotgh} u \Rightarrow y' = -\operatorname{cosech}^2 u \cdot u'$
8) $y = \frac{u}{c} \Rightarrow y' = \frac{u'}{c}$ , ( $c$ , constante arbitrária)	30) $y = \operatorname{sech} u \Rightarrow y' = -\operatorname{sech} u \cdot \operatorname{tgh} u \cdot u'$
9) $y = \ln u \Rightarrow y' = \frac{u'}{u}$	31) $y = \operatorname{cosech} u \Rightarrow y' = -\operatorname{cosech} u \cdot \operatorname{cotgh} u \cdot u'$
10) $y = \log_a u \Rightarrow \frac{u'}{u} \log_a e$	32) $y = \operatorname{argsenh} u \Rightarrow y' = \frac{u'}{\sqrt{u^2 + 1}}$
11) $y = a^u \Rightarrow y' = a^u \cdot \ln a \cdot u'$	33) $y = \operatorname{argcosh} u \Rightarrow y' = \frac{u'}{\sqrt{u^2 - 1}}$
12) $y = e^u \Rightarrow y' = e^u \cdot u'$	34) $y = \operatorname{arg} \operatorname{tgh} u \Rightarrow y' = \frac{u'}{1 - u^2}$
13) $y = u^v \Rightarrow y' = v \cdot u^{v-1} \cdot u' + u^v \cdot \ln u \cdot v'$	35) $y = \operatorname{arg} \operatorname{cot} h u \Rightarrow y' = \frac{u'}{u^2 - 1}$
14) $y = \operatorname{sen} u \Rightarrow y' = \cos u \cdot u'$	36) $y = \operatorname{arg} \operatorname{sech} u \Rightarrow y' = -\frac{u'}{u \cdot \sqrt{1 - u^2}}$
15) $y = \cos u \Rightarrow y' = -\operatorname{sen} u \cdot u'$	37) $y = \operatorname{arg} \operatorname{cosech} u \Rightarrow y' = -\frac{u'}{ u  \cdot \sqrt{1 - u^2}}$
16) $y = \operatorname{tg} u \Rightarrow y' = \sec^2 u \cdot u'$	38) $(f \circ u)'(x) = f'(u(x)) \cdot u'(x)$ (função composta)
17) $y = \operatorname{cotg} u \Rightarrow y' = -\operatorname{cosec}^2 u \cdot u'$	ou
18) $y = \sec u \Rightarrow y' = \sec u \cdot \operatorname{tg} u \cdot u'$	$\frac{df(u)}{dx} = \frac{df}{du} \cdot \frac{du}{dx}$
19) $y = \operatorname{cosec} u \Rightarrow y' = -\operatorname{cosec} u \cdot \operatorname{cotg} u \cdot u'$	
20) $y = \operatorname{arcsen} u \Rightarrow y' = \frac{u'}{\sqrt{1 - u^2}}$	
21) $y = \operatorname{arccos} u \Rightarrow y' = -\frac{u'}{\sqrt{1 - u^2}}$	
22) $y = \operatorname{arctg} u \Rightarrow y' = \frac{u'}{1 + u^2}$	