Tabela de Derivadas

Seja $k \in \mathbb{R}$ constante; u, v funções reais de variável real.

1. $(k)' = 0$

2. $(x)' = 1$

3. $(u \pm v)' = u' \pm v'$

4. $(u.v)' = u'.v + u.v'$

5. $\left(\frac{u}{v}\right)' = \frac{u'.v - u.v'}{v^2}$

6. $(k.u)' = k.u'$

7. $(u^k)' = k.u^{k-1}.u'$

8. $(a^u)' = u'.a^u.\ln(a)$

9. $(u^v)' = u^v.v'.\ln(u) + v.u^{v-1}.u'$

10. $(\log_a(u))' = \frac{u'}{u.\ln(a)}$

11. $(\text{sen}(u))' = u'\cos(u)$

12. $(\cos(u))' = -u'\text{sen}(u)$

13. $(\text{tg}(u))' = u'\sec^2(u)$

14. $(\text{cotg}(u))' = -u'\text{cosec}^2(u)$

15. $(\sec(u))' = u'\sec(u).\text{tg}(u)$

16. $(\text{cosec}(u))' = -u'\text{cosec}(u).\text{cotg}(u)$

17. $(\text{arcsen}(u))' = \frac{u'}{\sqrt{1-u^2}}$

18. $(\arccos(u))' = -\frac{u'}{\sqrt{1-u^2}}$

19. $(\text{arctg}(u))' = \frac{u'}{1+u^2}$

20. $(\text{arccotg}(u))' = -\frac{u'}{1+u^2}$

21. $(\text{arcsec}(u))' = \frac{u'}{|u|\sqrt{u^2-1}}$, com $|u| > 1$

22. $(\text{arccosec}(u))' = -\frac{u'}{|u|\sqrt{u^2-1}}$, com $|u| > 1$