Regras de Primitivação Imediata

k constante, $n \in \mathbb{R}\backslash\{-1\}$, u e v funções, $a \in \mathbb{R}^+\backslash\{1\}$

1. $Pk = kx$
2. $Px^n = \frac{x^{n+1}}{n+1}$
3. $Pu'u^n = \frac{u^{n+1}}{n+1}$
4. $P\frac{1}{x} = \ln|x|$
5. $P\frac{u'}{u} = \ln|u|$
6. $Pe^u u' = e^u$
7. $Pa^u u' = \frac{a^u}{\ln a}$
8. $Pu' \sin u = -\cos u$
9. $Pu' \cos u = \sin u$
10. $Pu' \sec^2 u = \tan u$
11. $Pu' \text{cosec}^2 u = -\text{ cotan} u$
12. $Pu' \sec u \tan u = \sec u$
13. $Pu' \text{cosec } u \text{ cotan } u = -\text{cosec } u$
14. $P\frac{u'}{1+u^2} = \arctan u$
15. $P\frac{u'}{\sqrt{1-u^2}} = \arcsin u$
16. $P\frac{u'}{|u|\sqrt{u^2-1}} = \text{arcsec } u$
17. $Pu' \text{sh } u = \text{ch } u$
18. $Pu' \text{ch } u = \text{sh } u$
19. $Pu' \text{sech }^2 u = \tanh u$
20. $Pu' \text{cosech }^2 u = -\text{cotanh } u$
21. $Pu' \text{sech } u \tanh u = -\text{sech} u$
22. $Pu' \text{cosech } u \text{ cotanh } u = -\text{cosech} u$
23. $P\frac{u'}{\sqrt{u^2+1}} = \text{argsh } u$
24. $P\frac{u'}{\sqrt{u^2-1}} = \text{argch } u$

Algumas primitivas quase imediatas

- $Pu' \tan u = -\ln|\cos u|$
- $Pu' \text{cotan } u = \ln|\sin u|$
- $Pu' \sec u = \ln|\sec u + \tan u|$
- $Pu' \text{cosec } u = -\ln|\text{cosec } u + \text{cotan } u|$

Propriedades:

- $P(u+v) = Pu + Pv$
- $Pku = kPu$

Primitivação por partes:

$$Puv' = uv - Pu'v$$