TABELA DE INTEGRAIS ELEMENTARES

	$F'(x) = f(x)$	$F(x) = \int f(x)\,dx$
1.	$x^\alpha \ (\alpha \neq -1)$	$\frac{x^{\alpha+1}}{\alpha+1}$
2.	$\frac{1}{x}$	$\log\lvert x\rvert$
3.	e^x	e^x
4.	$a^x \ (a \neq 1)$	$\frac{a^x}{\log a}$
5.	$\operatorname{sen} x$	$-\cos x$
6.	$\cos x$	$\operatorname{sen} x$
7.	$\cos\sec^2 x = \frac{1}{\operatorname{sen}^2 x}$	$-\cot x$
8.	$\sec^2 x = \frac{1}{\cos^2 x}$	$\tan x$
9.	$\operatorname{senh} x$	$\cosh x$
10.	$\cosh x$	$\operatorname{senh} x$
11.	$\operatorname{cosech}^2 x = \frac{1}{\operatorname{senh}^2 x}$	$-\coth x$

$F'(x) = f(x)$		$F(x) = \int f(x)\,dx$
12. $\operatorname{sech}^2 x = \dfrac{1}{\cosh^2 x}$		$\tanh x$
13. $\dfrac{1}{\sqrt{1-x^2}}$	$(\lvert x\rvert < 1)$	$\begin{cases} \operatorname{arc\,sen} x \\ -\operatorname{arc\,cos} x \end{cases}$
14. $\dfrac{1}{1+x^2}$		$\begin{cases} \operatorname{arc\,tan} x \\ -\operatorname{arc\,cot} x \end{cases}$
15. $\dfrac{1}{\sqrt{1+x^2}}$		$\operatorname{arsenh} x = \log\left(x + \sqrt{1+x^2}\right)$
16. $\dfrac{\pm 1}{\sqrt{x^2-1}}$	$(\lvert x\rvert > 1)$	$\operatorname{arcosh} x = \log\left(x \pm \sqrt{x^2-1}\right)$
17. $\dfrac{1}{1-x^2}$	$\begin{cases} \lvert x\rvert < 1 \\ \lvert x\rvert > 1 \end{cases}$	$\operatorname{artanh} x = \frac{1}{2}\log\frac{1+x}{1-x}$ $\operatorname{arcoth} x = \frac{1}{2}\log\frac{x+1}{x-1}$
18. $\sec x \cdot \tan x$		$\sec x$
19. $\operatorname{cossec} x \cdot \cot x$		$-\operatorname{cossec} x$

COMO USAR

derivação ←

$$\operatorname{sen} x = \frac{d}{dx}(-\cos x)$$

integração →

$$\int x^{\alpha}\,dx = \frac{x^{\alpha+1}}{\alpha+1}$$

Lembre que:

$$\int_a^b f(x)\,dx = F(b) - F(a) \quad \text{se} \quad F' = f$$