

## TABELA DE PRIMITIVAS

$$\int c du = cu + k$$

$$\int u^n du = \frac{u^{n+1}}{n+1} + k, \text{ se } n \neq -1$$

$$\int u^n du = \ln|u| + k, \text{ se } n = -1$$

$$\int e^u du = e^u + k$$

$$\int \frac{1}{u} du = \ln|u| + k$$

$$\int \text{sen}(u) du = -\cos(u) + k$$

$$\int \cos(u) du = \text{sen}(u) + k$$

$$\int \text{tg}(u) du = -\ln|\cos(u)| + k$$

$$\int \cot g(u) du = \ln|\text{sen}(u)| + k$$

$$\int \frac{1}{u^2 + a^2} du = \frac{1}{a} \cdot \text{arctg}\left(\frac{u}{a}\right) + k$$

$$\int \frac{1}{u^2 - a^2} du = \frac{1}{2a} \cdot \ln\left|\frac{u-a}{u+a}\right| + k$$

$$\int \frac{u}{u^2 \pm a^2} du = \frac{1}{2} \cdot \ln|u^2 \pm a^2| + k$$

$$\int \sec(u) du = \ln|\sec(u) + \text{tg}(u)| + k$$

$$\int \cos \sec(u) du = -\ln|\cos \sec(u) + \cot g(u)| + k$$

$$\int \sec^2(u) du = \text{tg}(u) + k$$

### Ampliando a Tabela de Primitivas

Sejam F primitivas de f e a  $\neq 0$  e b reais.  
Então:

$$\int f(a.u + b) du = \frac{1}{a} F(a.u + b) + k$$

$$\int (a.u + b)^n du = \frac{1}{a} \cdot \frac{(a.u + b)^{n+1}}{n+1} + k, \text{ se } n \neq -1$$

$$\int (a.u + b)^n du = \frac{1}{a} \ln|a.u + b| + k, \text{ se } n = -1$$

$$\int e^{a.u+b} du = \frac{1}{a} \cdot e^{a.u+b} + k$$

$$\int \text{sen}(a.u + b) du = -\frac{1}{a} \cos(a.u + b) + k$$

$$\int \cos(a.u + b) du = \frac{1}{a} \text{sen}(a.u + b) + k$$