Pravidla a vzorce pro integrování

P 1 $\qquad \int [f(x) \pm g(x)] dx = \int f(x) dx \pm \int g(x) dx$

P 2 $\qquad \int k \cdot f(x) dx = k \cdot \int f(x) dx$

V 1 $\qquad \int 1 dx = x + C$

V 2 $\qquad \int x^n dx = \dfrac{x^{n+1}}{n+1} + C, \quad n \neq -1$

V 3 $\qquad \int \dfrac{1}{x} dx = \ln|x| + C$

V 4 $\qquad \int \sin x \, dx = -\cos x + C$

V 5 $\qquad \int \cos x \, dx = \sin x + C$

V 6 $\qquad \int e^x dx = e^x + C$

V 7 $\qquad \int a^x dx = \dfrac{a^x}{\ln a} + C$

V 8 $\qquad \int \dfrac{f'(x)}{f(x)} dx = \ln|f(x)| + C$

V 9 $\qquad \int f(ax+b) dx = \dfrac{1}{a} F(ax+b) + C$

V10 $\int \dfrac{1}{\sin^2 x} dx = -\text{cotg}\, x + C$ $\qquad$ **V11** $\int \dfrac{1}{\cos^2 x} dx = \text{tg}\, x + C$

V12 $\int \dfrac{1}{A^2 + x^2} dx = \dfrac{1}{A} \text{arctg} \dfrac{x}{A} + C$ $\qquad$ **V13** $\int \dfrac{1}{A^2 - x^2} dx = \dfrac{1}{2A} \ln\left|\dfrac{A+x}{A-x}\right| + C$

V14 $\int \dfrac{1}{\sqrt{A^2 - x^2}} dx = \arcsin \dfrac{x}{A} + C$ $\qquad$ **V15** $\int \dfrac{1}{\sqrt{x^2 \pm B}} dx = \ln\left|x + \sqrt{x^2 \pm B}\right| + C$