

Tabel 6.1: Basisintegralen.

$\int x^\alpha dx = \frac{x^{\alpha+1}}{\alpha+1} + C, \quad \alpha \neq -1$	$\int \frac{dx}{x} = \ln x + C$
$\int \exp(x) dx = \int e^x dx = e^x + C$	$\int a^x dx = \frac{a^x}{\ln(a)} + C$
$\int \sin(x) dx = -\cos(x) + C$	$\int \cos(x) dx = \sin(x) + C$
$\int \operatorname{tg}(x) dx = -\ln \cos(x) + C$	$\int \operatorname{cotg}(x) dx = \ln \sin(x) + C$
$\int \frac{dx}{\cos^2(x)} = \operatorname{tg}(x) + C$	$\int \frac{dx}{\sin^2(x)} = -\operatorname{cotg}(x) + C$
$\int \frac{dx}{1+x^2} = \operatorname{bgtg}(x) + C$	$\int \frac{dx}{\sqrt{1-x^2}} = \operatorname{bgsin}(x) + C$

Tabel 6.2: Rekenregels voor integralen.

$\int C f(x) dx = C \int f(x) dx$
$\int (f(x) + g(x)) dx = \int f(x) dx + \int g(x) dx$
$\int_a^c f(x) dx = \int_a^b f(x) dx + \int_b^c f(x) dx$
$\int_a^b f(x) dx = -\int_b^a f(x) dx$
$\int_a^a f(x) dx = 0$
$\int_a^b f(x) dx = F(b) - F(a)$ als $F' = f$
$\int_a^b f(g(t)) g'(t) dt = \int_{g(a)}^{g(b)} f(s) ds$ (substitutie $s = g(t)$)
$\int f(x) g'(x) dx = f(x) g(x) - \int f'(x) g(x) dx$ (partiële integratie)

$$\int f^\alpha(x) df(x) = \int t^\alpha dt \quad t = f(x)$$

$$\int \frac{df(x)}{f(x)^\alpha} = \int \frac{dt}{t^\alpha}$$