

Formel blad

$$\int u \, dv = uv - \int v \, du$$

$$\int \frac{dx}{x} = \log|x| + c$$

$$\int \sqrt{a^2 + x^2} \, dx = \frac{1}{2} \left[x\sqrt{a^2 + x^2} + a^2 \log \left| \sqrt{a^2 + x^2} + x \right| \right] + c$$

$$\int \frac{du}{a^2 + u^2} \, du = \frac{1}{a} \arctan \frac{u}{a} + c$$

$$\int \frac{du}{u^2 - a^2} \, du = \frac{1}{2a} \log \left| \frac{u - a}{u + a} \right| + c$$

$$\sin(a \pm b) = \sin a \cos b \pm \cos a \sin b$$

$$\cos(a \pm b) = \cos a \cos b \mp \sin a \sin b$$

$$\frac{d}{dx} \sin x = \cos x$$

$$\frac{d}{dx} \cos x = -\sin x$$

$$\frac{d}{dx} \arctan x = \frac{1}{1 + x^2}$$

$$L = \int \sqrt{1 + f'(x)^2} \, dx$$

$$S = 2\pi \int f(x) \sqrt{1 + f'(x)^2} \, dx$$

$$V = \pi \int f(x)^2 \, dx$$