

$$0 < a < b: \int_a^b \frac{x \log^n x}{x} : \text{ which } p > 0: \int_2^\infty \frac{dx}{x \log^p x} < +\infty: \int_1^{e^-} \frac{1}{x \sqrt{1 - x \log^2}}$$

$$\int_{-\pi/2}^{3\pi/2} x \sin x \cos x: \int \frac{dx}{\sin x} = \int \frac{dx \sin x}{(1 + \cos x)(1 - \cos x)}: \int_{-\pi/4}^{\pi/4} \tan x: \int_a^b e^{\sin 2x} \cos 2x : \int_0^{\sqrt{\pi}/2} x \tan(x^2)$$

$$\text{welche } p > 0: \int_{dx}^{1|\infty} \frac{x}{(1+x^2)^p} \text{ konv?Wert} : \int_0^1 \frac{x}{(1+x^2)^{3/2}}: \int_2^6 x^2 \sqrt{2x-3}$$

$$\int_0^1 \frac{x}{1+x^2}: \int_1^2 \frac{1/x \sin}{x^2}: \int_0^{1^-} x^{1-x^2} \log$$

$$\int_0^b x e^{x^2}: \int_0^\infty x e^{-x^2} = \frac{1}{2}$$

$$u = x^2 \Rightarrow du = 2x dx$$

$$2 \int_{dx}^{0|\infty} x e^{-x^2} = \int_{du}^{0|\infty} e^{-u} = -e^{-u} \Big|_0^\infty = 1$$