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Trigonometrische und exponentielle.

2

$$\int (3x - 5 \lg x) dx = \frac{3x^2}{2} + 5 \ln |\cos x| + K$$

$$b) \int (5 \cos x + 3^x) dx = 5 \sin x + \frac{3^x}{\ln 3} + K$$

$$c) \int (3 \lg x - 5 \cos x) dx = -3 \ln |\cos x| + 5 \sin x + K$$

$$d) \int (10^x - 5^x) dx = \frac{10^x}{\ln 10} + \frac{5^x}{\ln 5} + K$$

3

$$a) \int \frac{3}{x^2+1} dx = 3 \arctan x + K$$

$$b) \int \frac{2x}{x^2+1} dx = \ln |x^2+1| + K$$

$$c) \int \frac{x^2-1}{x^2+1} dx = \int \left(1 - \frac{2}{x^2+1}\right) dx = (x - 2 \arctan x) + K$$

$$d) \int \frac{(x+1)^2}{x^2+1} dx = \int \left(1 + \frac{2x}{x^2+1}\right) dx = x + \ln |x^2+1| + K$$

$$\begin{array}{r} x^2+1 \\ -x^2-1 \\ \hline -2 \end{array}$$

$$\frac{x^2+1}{1}$$

$$\begin{array}{r} x^2+2x+1 \\ -x^2 \quad -1 \\ \hline 2x \end{array}$$

$$\frac{x^2+1}{1}$$