



Berechnet diese bestimmten Integrale:

a) $\int_0^2 x \, dx$

b) $\int_{-1}^1 3x^2 \, dx$

c) $\int_1^3 4x + 1 \, dx$

d) $\int_2^5 4 \, dx$

e) $\int_0^2 4x \, dx$

f) $\int_0^3 6x^2 \, dx$

g) $\int_{-1}^1 2 \, dx$

h) $\int_1^5 3x^2 + 2x + 2 \, dx$

i) $\int_{-3}^1 7x^6 + 6x^5 - 2 \, dx$

j) $\int_{0,5\pi}^{\pi} \sin x \, dx$

k) $\int_1^3 x^2 + 2x \, dx$

l) $\int_1^e \frac{1}{x} \, dx$

m) $\int_{-2}^2 4x^7 - 3x^2 + 4 \, dx$

n) $\int_{\pi}^{2\pi} \cos x \, dx$

o) $\int_0^2 x^3 - x \, dx$

p) $\int_0^4 6x \, dx$

q) $\int_0^3 \cos x - x^2 \, dx$

Lösungen vorher umfalten

$$\left[\frac{1}{2}x^2\right]_0^2 = 2$$

$$[x^3]_{-1}^1 = 2$$

$$[2x^2 + x]_1^3 = 18$$

$$[4x]_2^5 = 12$$

$$[2x^2]_0^2 = 8$$

$$[2x^3]_0^3 = 54$$

$$[2x]_{-1}^1 = 4$$

$$[x^3 + x^2 + 2x]_1^5 = 156$$

$$[x^7 + x^6 - 2x]_{-3}^1 = 1452$$

$$[-\cos x]_{0,5\pi}^{\pi} = 1$$

$$\left[\frac{1}{3}x^3 + x^2\right]_1^3 = \frac{50}{3}$$

$$[\ln x]_1^e = 1$$

$$\left[\frac{1}{2}x^8 - x^3 + 4x\right]_{-2}^2 = 0$$

$$[\sin x]_{\pi}^{2\pi} = 0$$

$$\left[\frac{1}{4}x^4 - \frac{1}{2}x^2\right]_0^2 = 2$$

$$[3x^2]_0^4 = 48$$

$$\left[\sin x - \frac{1}{3}x^3\right]_0^3 \approx 8,8589$$

