

Brückenkurs Mathematik für Studierende der Chemie
Übung 7

Differentiation

1. Geben Sie jeweils die erste Ableitung an:

(a) $y = 2$

(b) $y = x$

(c) $y = 3x^3$

(d) $y = x^{-1}$

(e) $y = x^{-2}$

(f) $y = \sqrt{x}$

(g) $y = \frac{1}{\sqrt{x}}$

(h) $y = \sqrt[3]{x^2}$

(i) $y = \ln(x)$

(j) $y = \cos(x)$

(k) $y = \tan(x)$

(l) $y = 1 + x^7$

(m) $y = x^{-5}$

(n) $y = \sqrt{x^3}$

(o) $y = \frac{1}{x^4}$

(p) $y = \frac{1}{\sqrt{x^3}}$

(q) $y = \frac{\sqrt[3]{x}}{\sqrt{x^3}}$