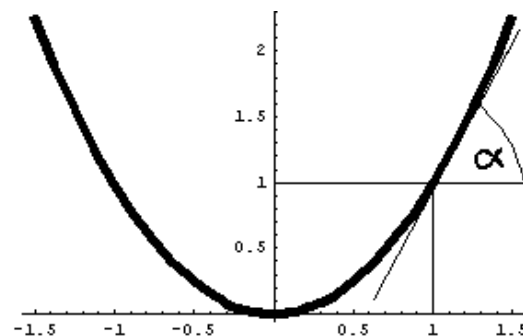


Übungen in Analysis ◇ Exercices en analyse ◇ Type E1 ◇ I / 9

Probl. 1 $f(x) = x^3 \rightsquigarrow \lim_{x \rightarrow 2} \frac{f(x) - f(2)}{x - 2} = ?$

Probl. 2 $f(x) = x^2, x_0 = 1 \rightsquigarrow \alpha(x_0) = ?$



Probl. 3 $f(x) = k_1 \cdot x^2 + k_2 \rightsquigarrow$ (a) $f'(x) = ?$

(b) $f'(x_0) = \tan(\alpha(x_0)) = 3, x_0 = 1, k_1 = ?$

Probl. 4 (a) $f(x) = \sin(x), f'(x_0) = \lim_{x \rightarrow 0} \frac{\sin(x) - \sin(0)}{x - 0} = ?$

(b) $f(x) = \sin(x), \alpha = ?$

