

Übungen in Analysis $\diamond$ Exercices en Analyse $\diamond$ T. I1 $\diamond$ II / 12

Probl. 1 Konvergenz? — Grenzwert, falls möglich? • *Convergence? — Valeur limite, si possible?*

(a) $\sum_{k=1}^{\infty} (3 - 4k)$

(b) $\sum_{k=1}^{\infty} 3 \cdot 4^{k-1}$

(c) $\sum_{k=1}^{\infty} 3 \cdot \left(\frac{1}{4}\right)^{k-1}$

(d) $\sum_{k=1}^{\infty} \left(\frac{k-1}{k^2}\right) \cdot \left(\frac{1}{5}\right)^{k+1}$

(e) $\sum_{k=1}^{\infty} (-1)^k \cdot \left(\frac{1}{k}\right)^5$

(f) $\sum_{k=0}^{\infty} c_k \cdot x^k, \quad |x| < 1, \quad |c_k| < 10$