Übungen in Analysis ◇ Exercices en analyse ◇ Type B2 ◇ I / 2

Probl. 1 Stelle Plots her: • *Fabriquer des plots:*

(a) $f(x) = 3\,x - 4$
(b) $f(x) = \sin(\cos(x))$
(c) $f(x) = |x| - [\sin(x)]$
(d) $f(x) = [4\,x] - sgn(x)$
(e) $f(x) = \dfrac{1}{x} - \dfrac{1}{x^2}$
(f) $f(x) = \cos(x^2 + x)$
(g) $f(x) = e^{-\frac{1}{2}\,x^2}$
(h) $f(x) = e^{x^2}$
(i) $f(x) = e^{-x^2} - 1$

Probl. 2 Sei • *Soit* $f(x) = x^2 - x + 1,\ \ g(x) = -\dfrac{1}{2}\,x^2 + x + 2$

$\rightsquigarrow$ Löse: • *Résoudre:* $f(x) \geq g(x)$

Probl. 3 Plot: • *Plot (dessin):*

$$f(x) \quad = \quad \begin{cases} \sin(x) & x = n \in \mathbb{Z} \\ 0 & x \notin \mathbb{Z} \end{cases}$$