

$$\begin{aligned} \text{b) } d(x) &= g(x) - h(x) \\ &= e^{-x} - x^3 \end{aligned}$$

$$d'(x) = e^{-x} \cdot (-1) - 3x^2$$

$$x_1 = x_0 \cdot \frac{d(x_0)}{d'(x_0)}$$

$$x_1 = 1 \cdot \frac{e^{-1} - 1^3}{-e^{-1} - 3 \cdot 1^2} = 1 \cdot \frac{e^{-1} - 1}{-e^{-1} - 3} \approx 0,8123$$