

Bal te water

$$13. \langle a \rangle = \frac{2 - 8 \cdot e^{-4} - 2 + 8}{2} \text{ m/s}^2 = 3,93 \text{ m/s}^2$$

$$14. \quad v(t) = 0 \quad \rightarrow \quad 8 \cdot e^{-2t} = 2 \quad \rightarrow \quad e^{-2t} = \frac{1}{4}$$
$$\rightarrow \quad -2t = \ln \frac{1}{4} \quad \rightarrow \quad t = -\frac{1}{2} \cdot \ln \frac{1}{4} = \ln 2$$

$$15. \quad d = - \int_0^{\ln 2} (2 - 8 \cdot e^{-2t}) dt = - \left[2t + 4 \cdot e^{-2t} \right]_0^{\ln 2} = -2 \ln 2 - 1 + 4 = 3 - 2 \ln 2 = 1,61$$

De grootste diepte is dus 1,61 meter