Technische Mechanik - Uebungen 3

1

$$\begin{aligned} & \text{A - } (3 \times 3) - (3 + (2 \times 2)) = 9 - 7 = 2 \\ & \text{B - } 9 - (2 \times 4) = 1 \\ & \text{C - } 9 - ((2 \times 4) + 1) = 0 \\ & \text{D - } 9 - (2 \times 4) = 1 \end{aligned}$$

Answer: Nur A

2.

$$\begin{split} v_A &= (r_1 + r_2) \omega e_x \\ v_B &= -(r_2 - r_1) \omega e_x \end{split}$$

Answer: e

3.

$$\begin{split} r_{GH} &= -ae_x \\ v_{G}{'} &= v_{Gx} = -v \\ v_{Hx}{'} &= -v \\ \overrightarrow{\omega} \cdot \overrightarrow{v_G} &= \overrightarrow{\omega} \cdot \overrightarrow{v_H} \end{split}$$