

2.3

Dane:

$$t_1 = 6 \text{ s}$$

$$t_2 = 12 \text{ s}$$

$$\alpha = 12 \text{ rad}$$

$$\alpha = \frac{1}{2} \varepsilon t_1^2 \quad | \cdot 2$$

$$2\alpha = \varepsilon t_1^2 \quad | : t_1^2$$

$$\frac{2\alpha}{t_1^2} = \varepsilon$$

$$\varepsilon = \frac{2\alpha}{t_1^2}$$

$$\varepsilon = \frac{2 \cdot 12 \text{ rad}}{(6 \text{ s})^2} = \frac{24 \text{ rad}}{36 \text{ s}^2} = \frac{2}{3} \frac{\text{rad}}{\text{s}^2} \approx 0,7 \text{ rad/s}^2$$

$$\varepsilon = \frac{\omega}{t}$$

$$\omega = \varepsilon \cdot t_2$$

$$\omega = \frac{2}{3} \frac{\text{rad}}{\text{s}^2} \cdot 12 \text{ s} = 8 \text{ rad/s}$$