

Str.175 36.3

Dane:

$$f = 4\text{Hz}$$

$$\text{a) } A = 2\text{cm} = 0,02\text{m}$$

$$\lambda = 8\text{cm} = 0,08\text{m}$$

$$\lambda = \frac{v_x}{f}$$

$$v_x = \lambda f$$

$$v_x = 0,08\text{m} \times 4\text{Hz} = 0,32 \frac{\text{m}}{\text{s}}$$

$$\text{b) } v_{\max} = A\omega \quad \omega = 2\pi f$$

$$v_{\max} = 2\pi f A$$

$$v_{\max} = 2 \times 3,14 \times 4\text{Hz} \times 0,02\text{m} = 0,5024 \frac{\text{m}}{\text{s}} \approx 50 \frac{\text{cm}}{\text{s}}$$