

Str.174 35.7

Dane:

$$f = 1000\text{Hz}$$

$$v_{max} = 64 \frac{\text{m}}{\text{s}}$$

$$v = 340 \frac{\text{m}}{\text{s}}$$

Szukane:

$$\lambda = ?$$

$$A = ?$$

Rozwiązanie:

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

$$\lambda = \frac{340 \frac{\text{m}}{\text{s}}}{1000\text{Hz}} = 0,34\text{m}$$

$$v_{max} = A\omega$$

$$A = \frac{v_{max}}{\omega} \quad \omega = 2\pi f$$

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

$$A = \frac{64 \frac{\text{m}}{\text{s}}}{2 \times 3,14 \times 1000\text{Hz}} = 0,01\text{m} = 1\text{cm}$$