

36.4

$$A = 0,6 \text{ m}$$

$$\lambda = 120 \text{ cm} = 1,2 \text{ m}$$

$$T = 8 \text{ s}$$

$$y(x, t) = A \sin \left( \omega \left( t - \frac{x}{v} \right) + \varphi_0 \right)$$

$$\varphi_0 = \pi$$

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

$$v = \frac{1,2 \text{ m}}{8 \text{ s}} = 0,15 \frac{\text{m}}{\text{s}}$$

$$\omega = \frac{2\pi}{T}$$

$$\omega = \frac{2\pi}{8 \text{ s}} = \frac{\pi}{4} \frac{1}{\text{s}}$$

$$y(x, t) = A \sin \left( \omega \left( t - \frac{x}{v} \right) + \varphi_0 \right)$$

$$y(x, t) = 0,6 \sin \left( \frac{\pi}{4} \cdot \left( t - \frac{x}{0,15} \right) + \pi \right)$$

$$y(x, t) = 0,6 \sin \left( \frac{\pi}{4} \cdot t - \frac{\pi}{4} \cdot \frac{x}{0,15} + \pi \right)$$

$$y(x, t) = 0,6 \sin \left( \frac{\pi}{4} \cdot t - \frac{\pi}{0,6} \cdot x + \pi \right)$$

$$y(x, t) = 0,6 \sin \left( \frac{\pi}{4} \cdot t - \frac{5\pi}{3} \cdot x + \pi \right)$$

$$y(x, t) = 0,6 \sin \left( \frac{\pi}{4} \cdot t - \frac{5\pi}{3} \cdot x + \pi \right)$$

$$\sin(\alpha + \pi) = -\sin \alpha$$

$$y(x, t) = -0,6 \sin \left( \frac{\pi}{4} t - \frac{5\pi}{3} x \right)$$