

$$y(x,t) = 200 \text{ cm} \cdot \sin\left(2\pi \cdot \frac{5}{6} (t - 5x)\right)$$

str 177

Suchane:  
 $\varphi_0 = ?$

Dane:  $f = \sqrt{3} A$

zad 37.4 str 177

Równanie:

$$A) = 2A \left| \frac{\cos \varphi_0}{2} \right|$$

$$A) = \sqrt{3} A \Rightarrow \varphi_0 < 90^\circ$$

$$2A \left| \frac{\cos \varphi_0}{2} \right| = \sqrt{3} A$$

$$\cancel{2A} \left| \frac{\cos \varphi_0}{\cancel{2}} \right| = \frac{\cos \varphi_0}{2}$$

$$\frac{\cos \varphi_0}{2} = \frac{\sqrt{3}}{2}$$

$$\cos x = \frac{\sqrt{3}}{2}$$

$$x = \frac{\pi}{6}$$

$$\varphi_0 = \frac{\pi}{3} \Rightarrow \varphi_0 = 60^\circ$$