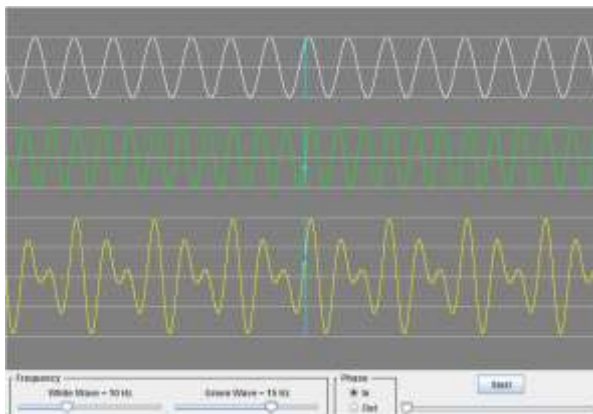


De trillingen verhouden zich als
twee natuurlijke getallen

$$y_1 = A_1 \sin(\omega_1 t + \varphi_1)$$

$$y_2 = A_2 \sin(\omega_2 t + \varphi_2)$$

$$\frac{\omega_1}{\omega_2} = \frac{f_1}{f_2} = \frac{n_1}{n_2}$$



Berekeningen

$$\frac{1/T_1}{1/T_2} = \frac{n_1}{n_2} \quad \rightarrow \quad \frac{T_2}{T_1} = \frac{n_1}{n_2}$$

$$\rightarrow n_1 \cdot T_1 = n_2 \cdot T_2 = T$$

$$\frac{n_1}{f_1} = \frac{n_2}{f_2} = \frac{1}{f}$$

Voorbeeld

$$y_1 = A \sin \pi t \quad T_1 = 2s$$

$$y_2 = A \sin \frac{2}{3} \pi t \quad T_2 = 3s$$

$$\frac{\omega_1}{\omega_2} = \frac{\pi}{\frac{2}{3}\pi} = \frac{3}{2} = \frac{n_1}{n_2}$$

$$n_1 T_1 = 3 \cdot 2s = n_2 T_2 = 2 \cdot 3s = T = 6s$$