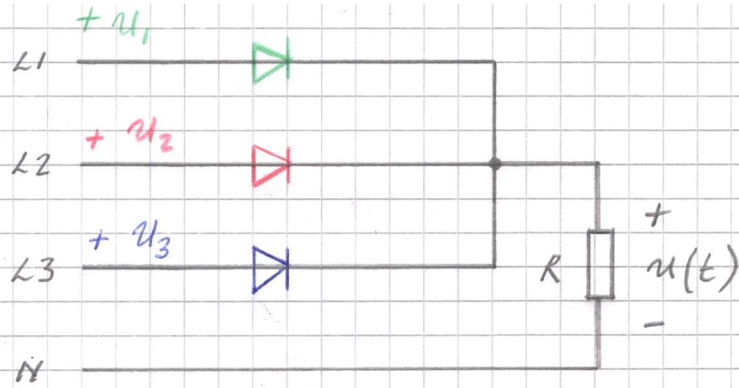
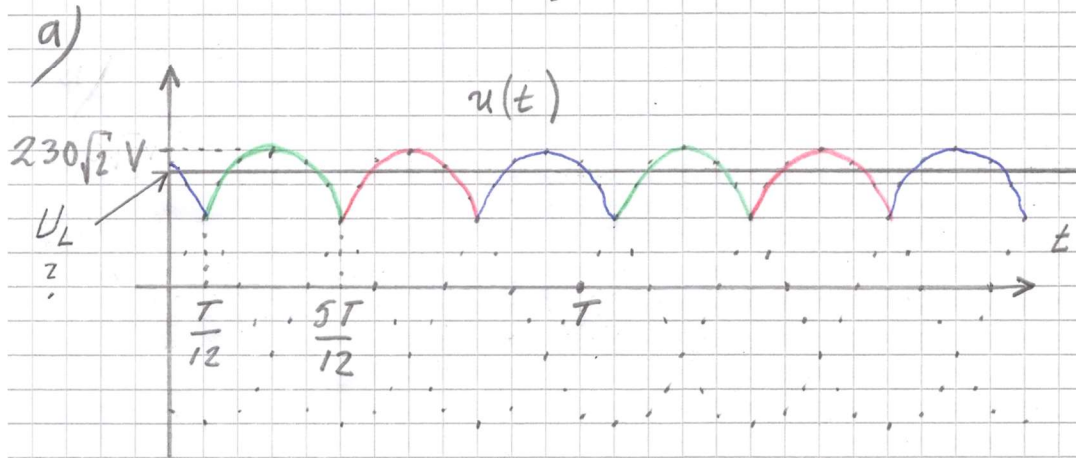


9.2



$$U_H = 400 \text{ V} \quad U_F = \frac{U_H}{\sqrt{3}} \Rightarrow U_F = 230 \text{ V}$$

$$f = 50 \text{ Hz} \quad T = \frac{1}{f} \Rightarrow T = 20 \text{ ms}$$



b)

$$U_L = \frac{1}{T} \int_0^T u(t) dt = \frac{3}{T} \int_0^{\frac{5T}{12}} u(t) dt =$$

$$= \left| T = \frac{2\pi}{\omega} \right| = \frac{3\omega}{2\pi} \int_{\frac{\pi}{6\omega}}^{\frac{5\pi}{6\omega}} 230\sqrt{2} \sin(\omega t) dt =$$

$$= \frac{3\omega}{2\pi} \cdot 230\sqrt{2} \left[ \frac{-\cos(\omega t)}{\omega} \right]_{\frac{\pi}{6\omega}}^{\frac{5\pi}{6\omega}} = 155,3 \left[ -\cos\left(\frac{5\pi}{6}\right) + \cos\left(\frac{\pi}{6}\right) \right] = 270 \text{ V}$$