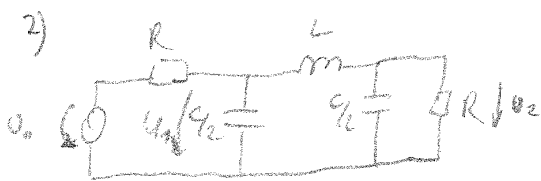


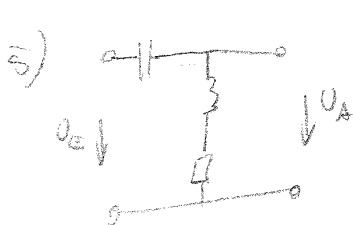
1) $x(t) = A e^{-5t} \epsilon(t)$ *kurze ungerade PA + Skizze*



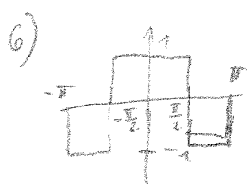
$R = \sqrt{LC}$
 *) PUL in original variables
 *) Standardfall $T_0 = \frac{LC}{2}$

3) $x(t) = \cos(3t) \cos(2t) \epsilon(t)$ *Laplace transform*

4) $G(s) = \frac{2s+1}{s^3+2s^2+s}$ $u(t) = \cos 3t$
 $\rightarrow y(t) = ?$



Bode Diagram Betrag



Fourier transform?

7) $G(s) = \frac{3s+2}{s^2+2}$

$u(t) = \epsilon(t)$

$y(0+) = \frac{1}{2}$

$y'(0+) = 0$



\hat{x}_1, \hat{x}_2

9) $i(t) = 0,2 A + 1,2 A \cos \omega t + 1,5 A \cos(2\omega t + \pi/4)$ $\omega = 2\pi 50 \text{ Hz}$
 $u_{\text{eff}} = ?$

10) $G(s) = \frac{Vs}{s^2 + 5s + 11}$



- (i) Pole f. S offen/zu
- (ii) OK für offenen S
- (iii) $\omega \neq 0$ für diese Schwingung, nicht bezogen!

$\omega_B = \frac{1}{T_r}$ $V = \frac{\sqrt{R_1 R_2}}{a}$

Schaltbild