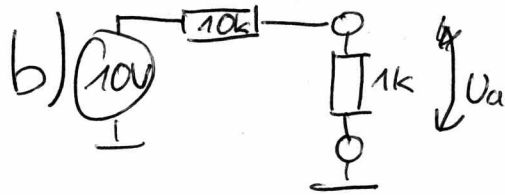
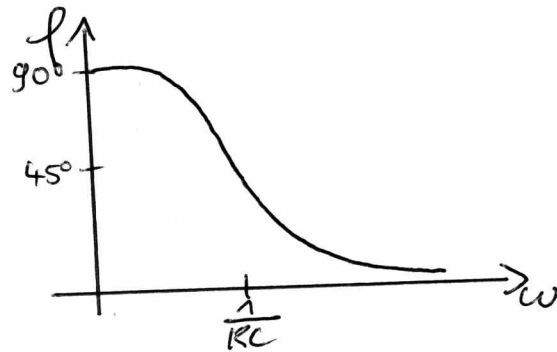
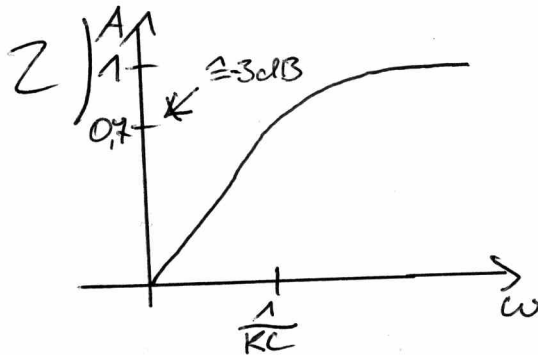




Ausgangsspannung: 10V
Widerstand: 10kΩ



$$U_a = \frac{1}{11} \cdot 10V$$



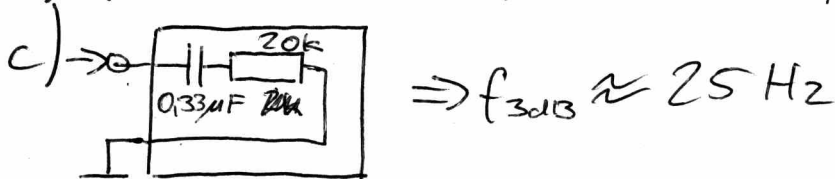
$A(\omega)$ sinkt für $\omega < \omega_{-3dB}$ mit 6 dB/Oktave

3a) $U_B = 1,6V (= 20V \cdot \frac{20k}{240k})$

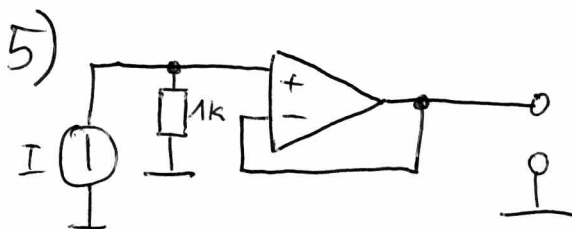
$$U_E = U_B - 0,6V = 1V$$

$$I_C \approx I_E = \frac{U_E}{2k} = 0,5mA$$

b) $V \approx 10$ U_{out} ist 180° phasenverschoben zu U_{in}



4) a) $V = +10$ $R_i = \infty$ b) $V = -10$ $R_i = 1k\Omega$



6) a) $U_a(t) = -\int U_e(t) \cdot \frac{1}{R \cdot C} dt$

b) $U_a = 0,5V$