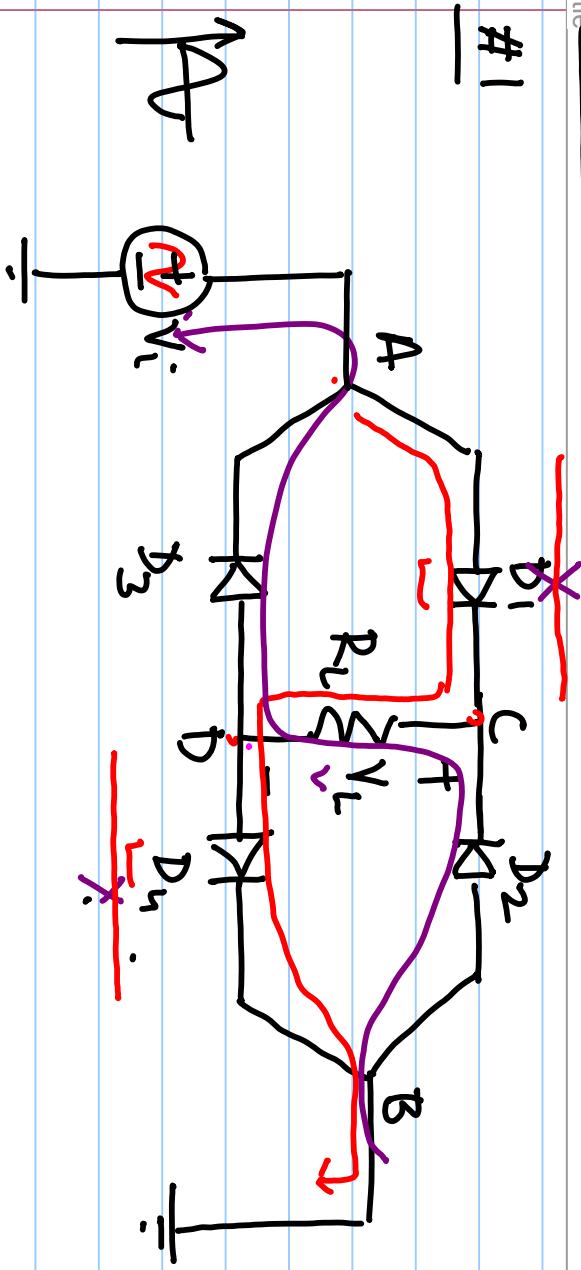
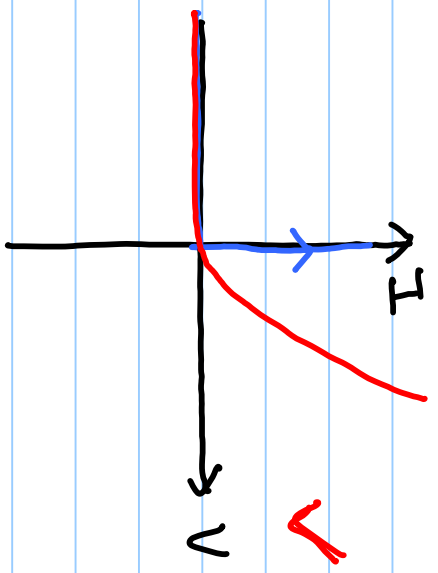
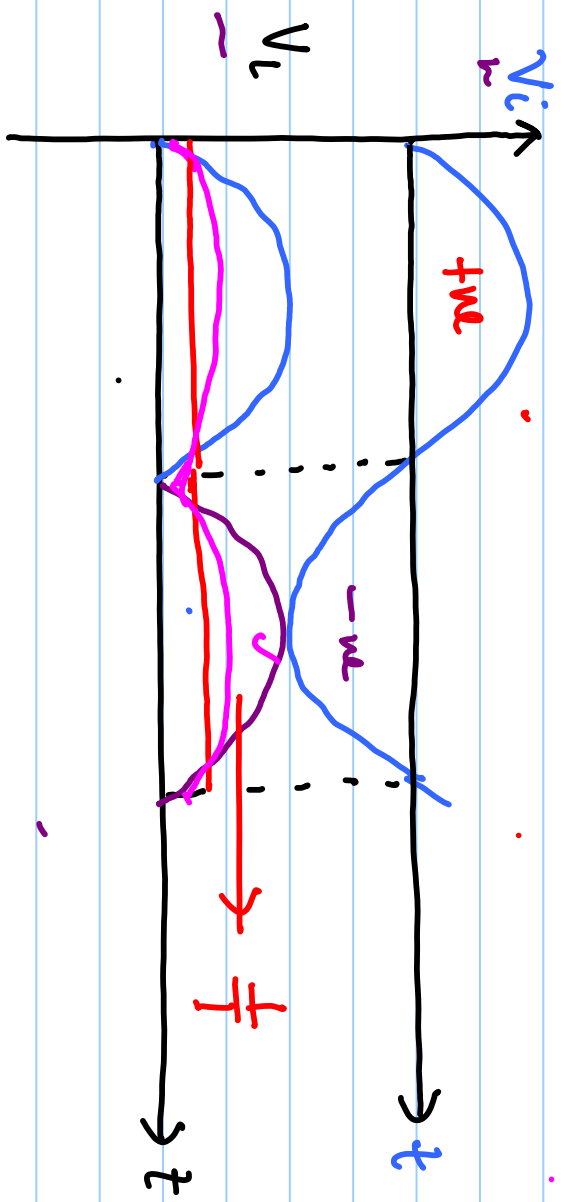


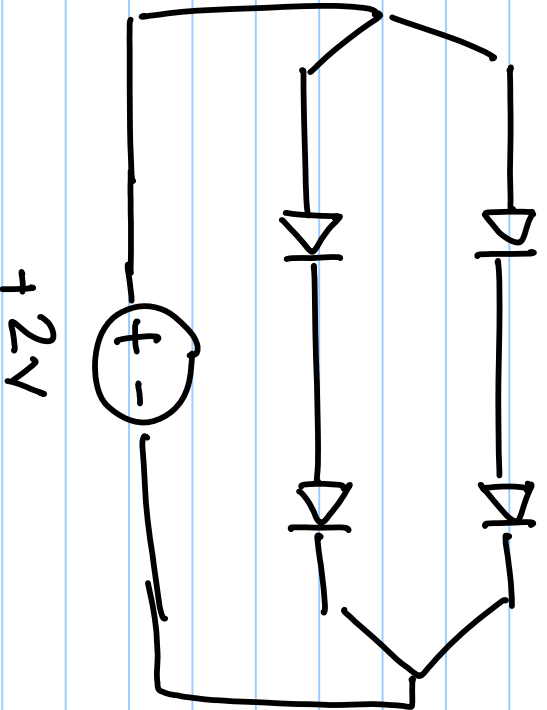
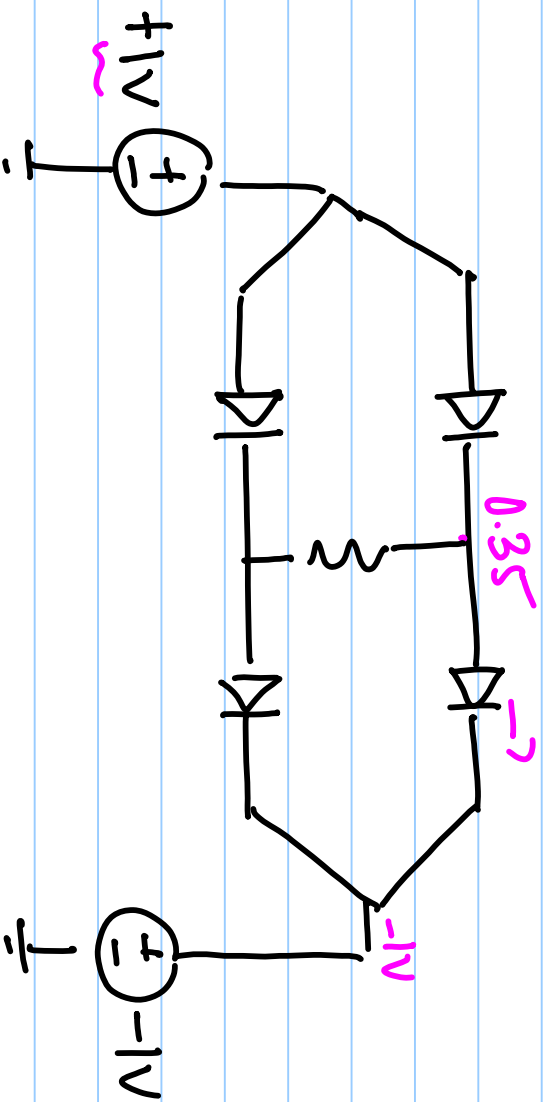
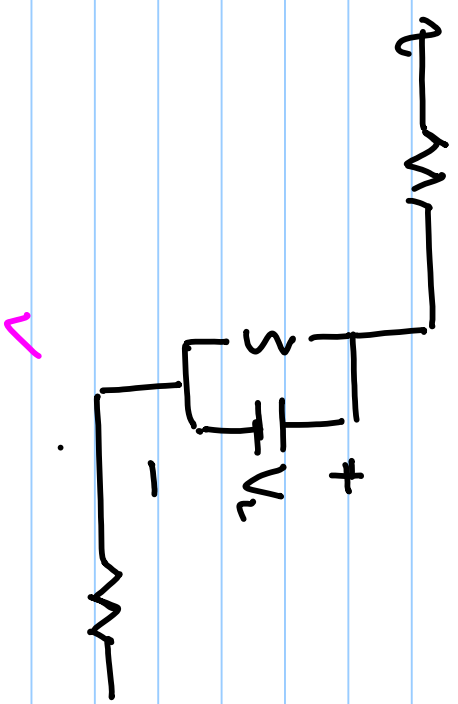
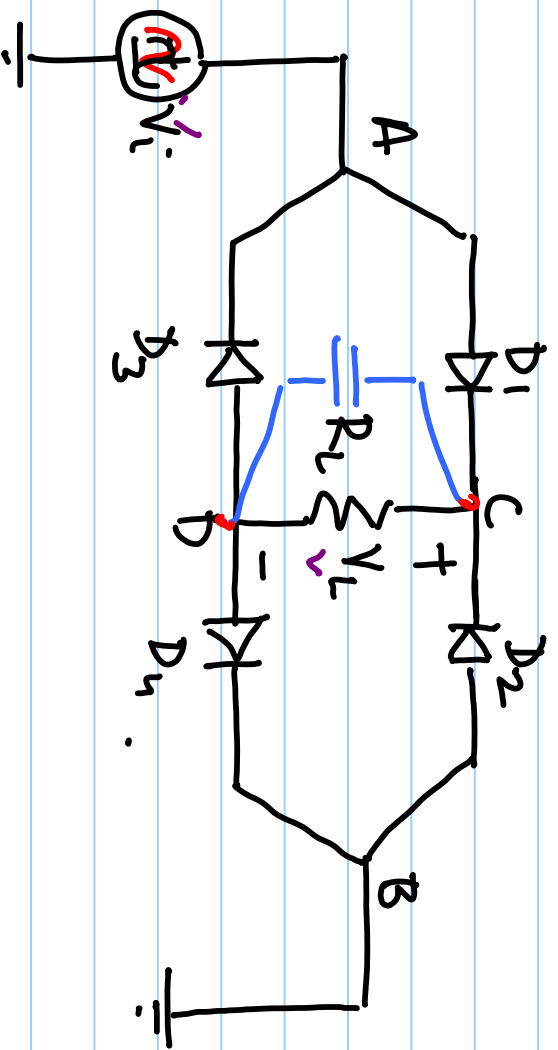
Tutorial # 1

#1

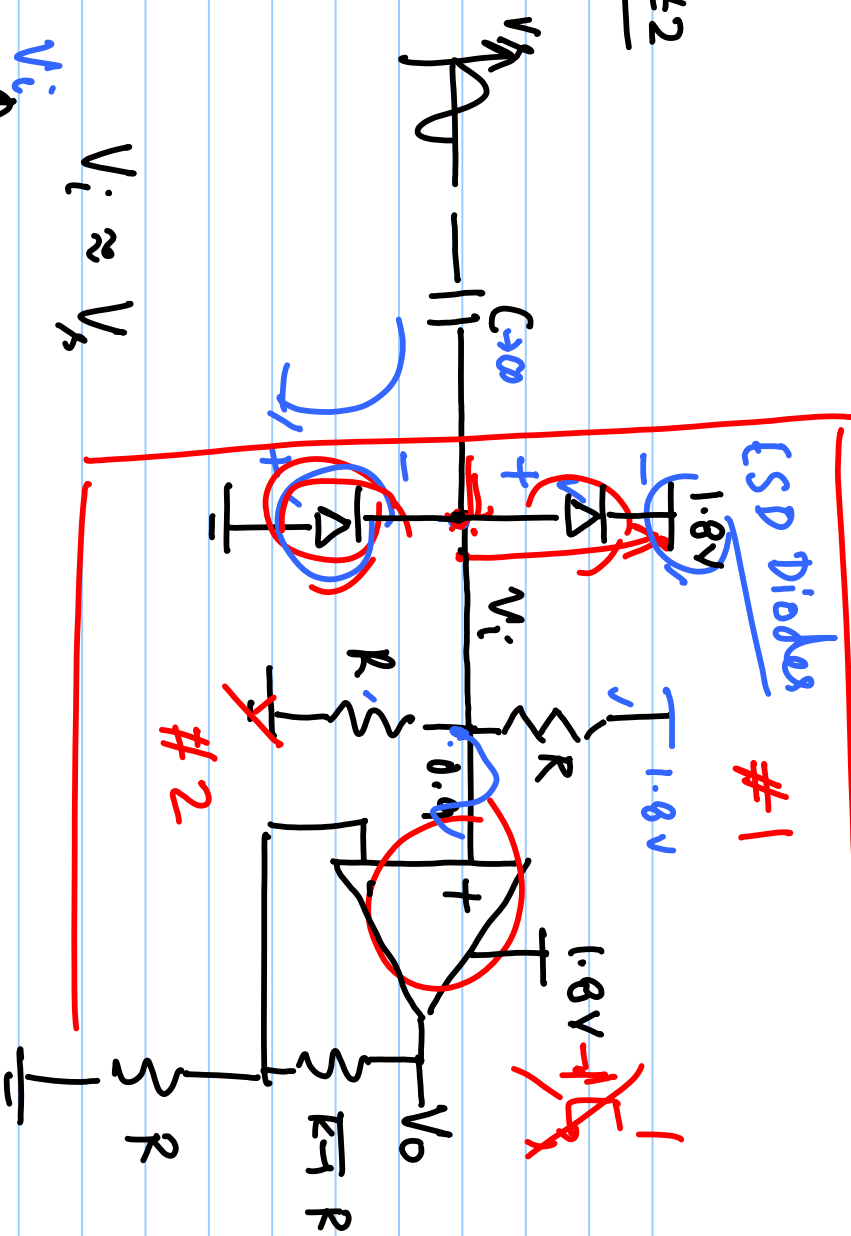


$$V_L = V_c - V_D \quad , \quad V_i = 5 \sin(2\pi \times 50 t)$$

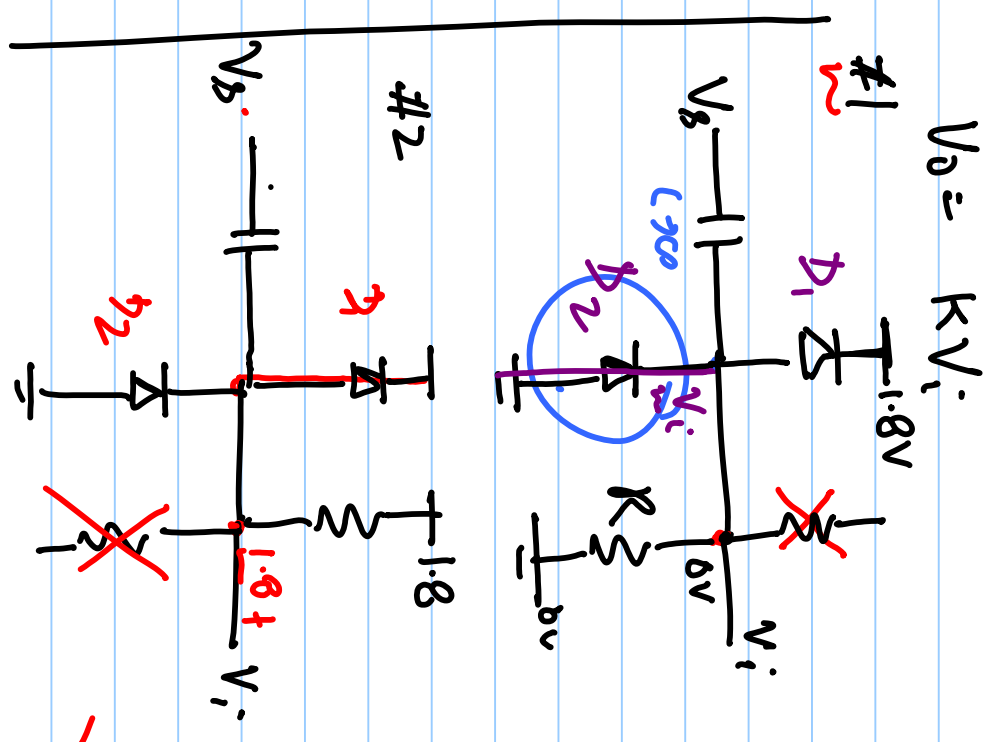
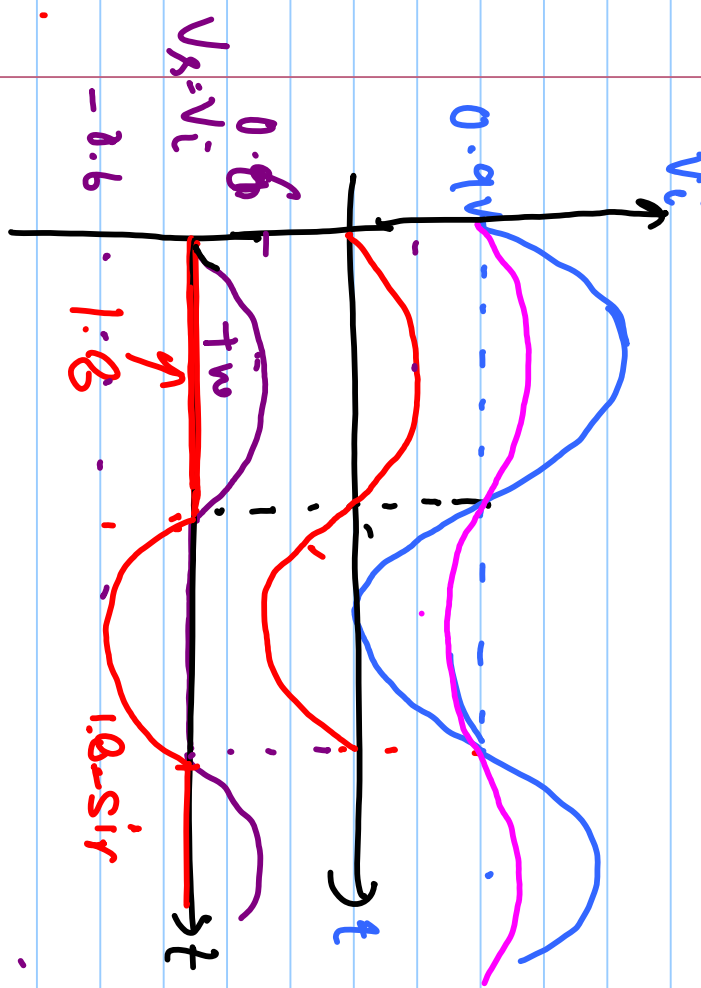




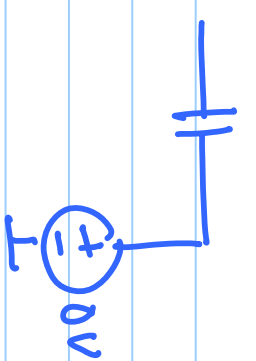
#2

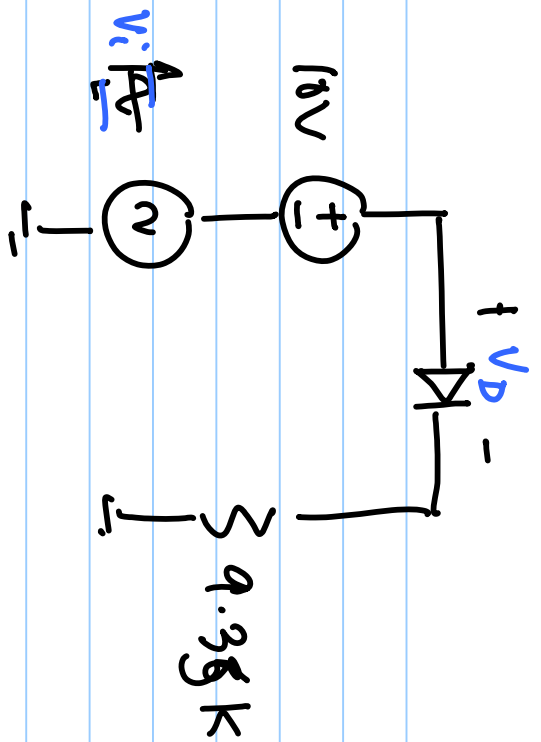


$V_i \approx V_s$



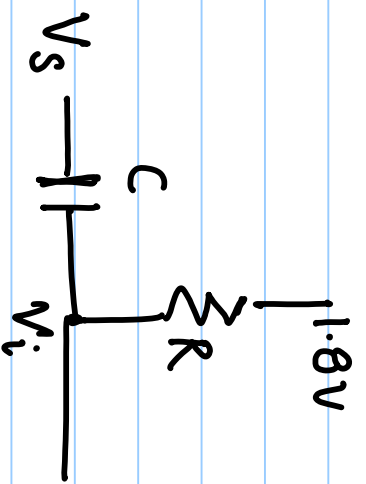
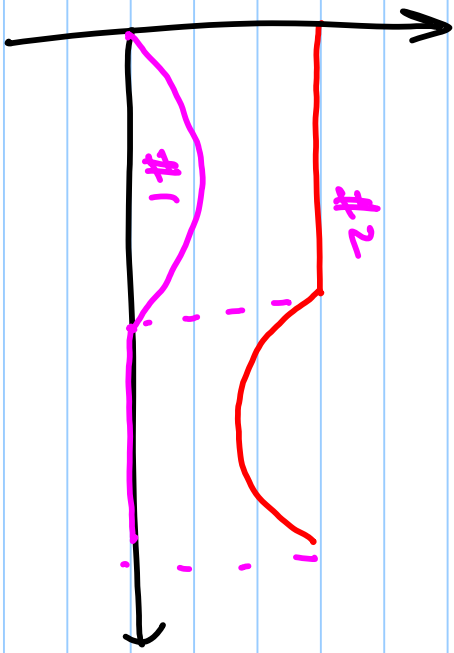
$1.8 + \sin(t)$





$$V_D = \frac{R_L}{R_L + R_D} V_i$$

$$0.65 + V_D < 0$$



$$V_i = 1.8 + \frac{R + \frac{1}{sC}}{1 + sRC} \cdot V_D$$

$$= 1.8 + \frac{sRC}{1 + sRC} V_D$$

$$\approx 1.8 + V_D$$

Diodes are reverse biased