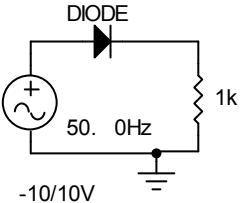
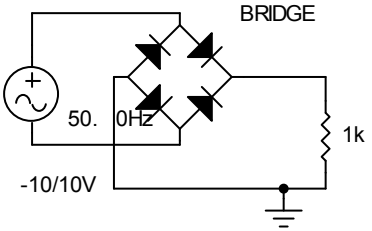
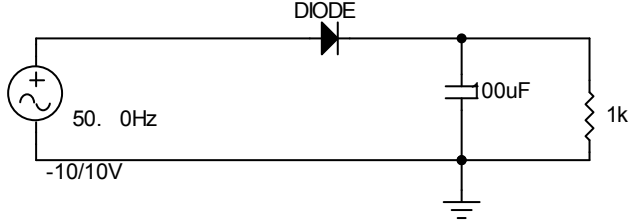
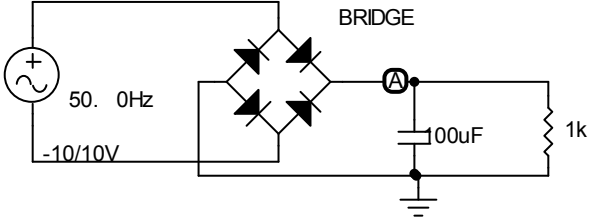
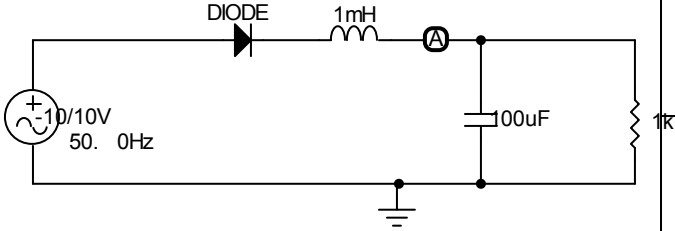
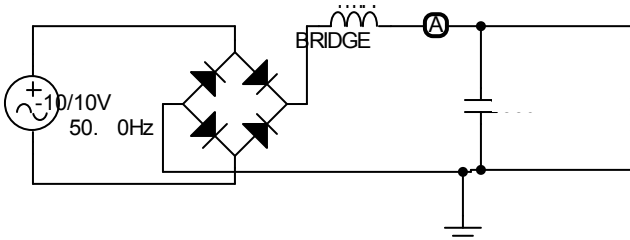
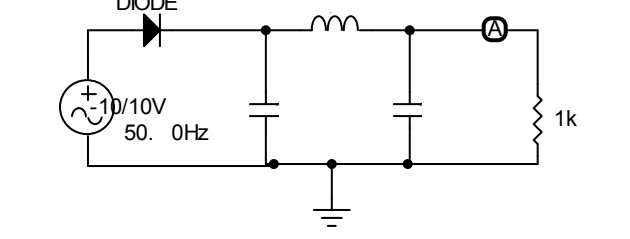
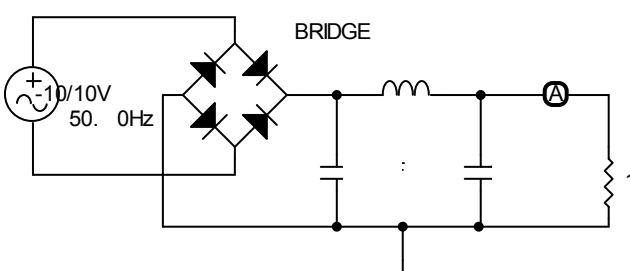
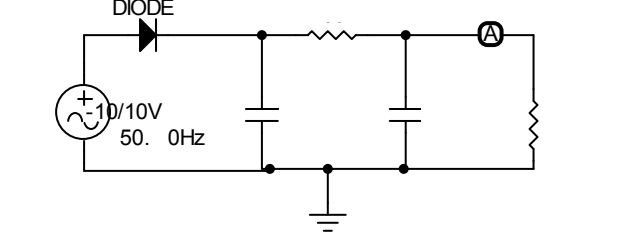


ΠΕΡΙΛΗΨΗ 3^{ου} ΜΑΘΗΜΑΤΟΣ ΣΤΑ ΤΡΟΦΟΔΟΤΙΚΑ

Απλή Ανόρθωση		$V_{DC} = \frac{V_o}{\pi}, V_{AC} = \frac{V_o}{2 \cdot \sqrt{2}}$		$r = \frac{\pi}{2 \cdot \sqrt{2}}$
Διπλή Ανόρθωση		$V_{DC} = \frac{2 \cdot V_o}{\pi}, V_{AC} = \frac{4 \cdot V_o}{3 \cdot \pi \cdot \sqrt{2}}$		$r = \frac{2}{3 \cdot \sqrt{2}}$
Απλή Ανόρθωση με φίλτρο RC		$C = \frac{\Delta Q}{\Delta U} \Rightarrow C = \frac{I_{DC} \cdot \Delta t}{U_K} \Rightarrow C \cdot U_{AC} \cdot 2 \cdot \sqrt{3} = \frac{U_{DC}}{R_L} \cdot T \Rightarrow$ $\Rightarrow C \cdot U_{AC} \cdot 2 \cdot \sqrt{3} \cdot R_L \cdot f = U_{DC}$		$r = \frac{1}{2 \cdot \sqrt{3} \cdot f \cdot R_L \cdot C}$
Πλήρης Ανόρθωση με φίλτρο RC		$C = \frac{\Delta Q}{\Delta U} \Rightarrow C = \frac{I_{DC} \cdot \Delta t}{U_K} \Rightarrow C = \frac{\frac{U_{DC}}{R_L} \cdot \frac{T}{2}}{2 \cdot \sqrt{3} \cdot U_{AC}} \Rightarrow$ $\Rightarrow C = \frac{\frac{U_{DC}}{R_L} \cdot \frac{1}{2 \cdot f}}{2 \cdot \sqrt{3} \cdot U_{AC}}$		$r = \frac{1}{4 \cdot \sqrt{3} \cdot f \cdot R_L \cdot C}$
Απλή Ανόρθωση με φίλτρο LC	 $Z_C \ll R_L \text{ και } Z_L \gg Z_C \text{ και } \omega = 2\pi f$	$V_{IN,DC} = \frac{V_o}{\pi}$	$V_{IN,AC} = \frac{V_o}{2 \cdot \sqrt{2}}$	$r = \frac{\pi}{2 \cdot \sqrt{2} \cdot \omega^2 \cdot L \cdot C} =$ $= \frac{1}{8 \cdot \pi \cdot \sqrt{2} \cdot f^2 \cdot L \cdot C}$
		$V_{OUT,DC} = V_{IN,DC} = \frac{V_o}{\pi}$	$V_{OUT,AC} = V_{IN,AC} \cdot \frac{1}{\frac{\omega \cdot C}{\omega \cdot L}} = \frac{1}{\omega^2 \cdot L \cdot C} \cdot \frac{V_o}{2 \cdot \sqrt{2}}$	

Πλήρης Ανόρθωση με φίλτρο LC	 $Z_C \ll R_L \text{ και } Z_L \gg Z_C \text{ και } \omega = 4\pi f$	$V_{IN,DC} = \frac{2 \cdot V_o}{\pi}$ $V_{OUT,DC} = V_{IN,DC} = \frac{2 \cdot V_o}{\pi}$	$V_{IN,AC} = \frac{4 \cdot V_o}{3 \cdot \pi \cdot \sqrt{2}}$ $V_{OUT,AC} = V_{IN,AC} \cdot \frac{1}{\omega^2 \cdot L \cdot C} = \frac{4 \cdot V_o}{3 \cdot \pi \cdot \sqrt{2} \cdot \omega^2 \cdot L}$	$r = \frac{2}{3 \cdot \sqrt{2} \cdot \omega^2 \cdot L \cdot C} = \frac{1}{24 \cdot \sqrt{2} \cdot \pi^2 \cdot f^2 \cdot L \cdot C}$
Απλή Ανόρθωση με φίλτρο Π με πηνίο	 $Z_{C2} \ll R_L \text{ και } Z_L \gg Z_{C2} \text{ και } \omega = 2\pi f$	$C_1 = \frac{\Delta Q_1}{\Delta U_1} \Rightarrow C_1 = \frac{I_{DC,1} \cdot T}{U_{K1}} \Rightarrow C \cdot U_{AC,1} \cdot 2 \cdot \sqrt{3} = \frac{U_{DC,1}}{R_L \cdot f} \Rightarrow$ $\Rightarrow \frac{U_{AC,1}}{U_{DC,1}} = \frac{1}{2 \cdot \sqrt{3} \cdot f \cdot R_L \cdot C_1}$	$V_{DC,2} = V_{DC,1}$ $V_{AC,2} = V_{AC,1} \cdot \frac{1}{\omega^2 \cdot L \cdot C_2}$	$r = \frac{V_{AC,2}}{V_{DC,2}} = \frac{1}{\omega^2 \cdot L \cdot C_2} \cdot \frac{V_{AC,1}}{V_{DC,1}} = \frac{1}{\omega^2 \cdot L \cdot C_2} \cdot \frac{1}{2 \cdot \sqrt{3} \cdot f \cdot R_L \cdot C_1} = \frac{1}{8 \cdot \pi^2 \cdot \sqrt{3} \cdot f^3 \cdot C_1 \cdot C_2 \cdot R_L \cdot L}$
Πλήρης Ανόρθωση με φίλτρο Π με πηνίο	 $Z_{C2} \ll R_L \text{ και } Z_L \gg Z_{C2} \text{ και } \omega = 4\pi f$	$C_1 = \frac{\Delta Q_1}{\Delta U_1} \Rightarrow C_1 = \frac{I_{DC,1} \cdot \frac{T}{2}}{U_{K1}} \Rightarrow C \cdot U_{AC,1} \cdot 2 \cdot \sqrt{3} = \frac{U_{DC,1}}{R_L \cdot 2 \cdot f} \Rightarrow$ $\Rightarrow \frac{U_{AC,1}}{U_{DC,1}} = \frac{1}{4 \cdot \sqrt{3} \cdot f \cdot R_L \cdot C_1}$	$V_{DC,2} = V_{DC,1}$ $V_{AC,2} = V_{AC,1} \cdot \frac{1}{\omega^2 \cdot L \cdot C_2} = V_{AC,1} \cdot \frac{1}{16 \cdot \pi^2 \cdot f^2 \cdot L \cdot C_2}$	$r = \frac{V_{AC,2}}{V_{DC,2}} = \frac{1}{16 \cdot \pi^2 \cdot f^2 \cdot L \cdot C_2} \cdot \frac{V_{AC,1}}{V_{DC,1}} = \frac{1}{64 \cdot \sqrt{3} \cdot \pi^2 \cdot f^3 \cdot R_L \cdot C_1 \cdot C_2 \cdot L}$
Απλή Ανόρθωση με φίλτρο Π με αντίσταση	 Ο C_1 εκφορτίζεται στην $R+R_L$ Αν ισχύει $Z_{C2} \ll R_L$ και $R \gg Z_{C2}$ Ισχύει $\omega = 2\pi f$	$C_1 = \frac{\Delta Q_1}{\Delta U_1} \Rightarrow C_1 = \frac{I_{DC,1} \cdot T}{U_{K1}} \Rightarrow C \cdot U_{AC,1} \cdot 2 \cdot \sqrt{3} = \frac{U_{DC,1}}{(R_L + R) \cdot f} \Rightarrow$ $\Rightarrow \frac{U_{AC,1}}{U_{DC,1}} = \frac{1}{2 \cdot \sqrt{3} \cdot f \cdot (R_L + R) \cdot C_1}$	$V_{DC,2} = V_{DC,1} \cdot \frac{R_L}{R + R_L}$ $V_{AC,2} = V_{AC,1} \cdot \frac{1}{\omega \cdot R \cdot C_2}$	$r = \frac{V_{AC,2}}{V_{DC,2}} = \frac{R + R_L}{\omega \cdot R_L \cdot R \cdot C_2} \cdot \frac{V_{AC,1}}{V_{DC,1}} = \frac{1}{4 \cdot \pi \cdot \sqrt{3} \cdot f^2 \cdot C_1 \cdot C_2 \cdot R_L \cdot R}$