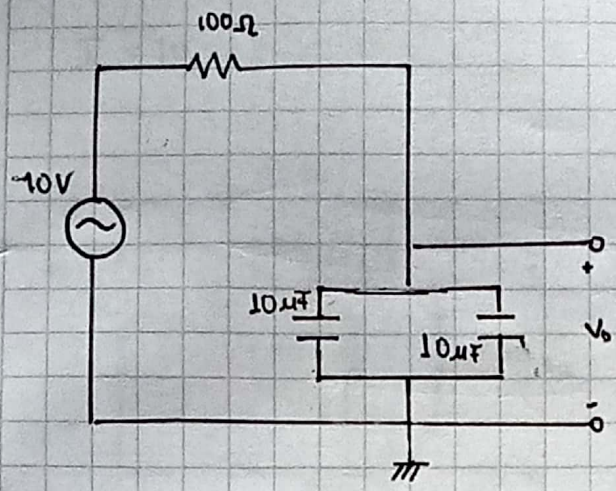
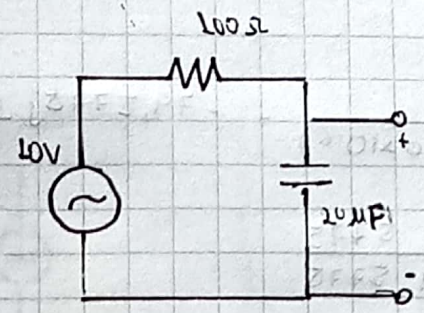



$$Z = \frac{1}{j2\pi fC} = \frac{1}{j2\pi(0)20} = 0$$

Con 10H

$$Z = \frac{1}{j2\pi(10)(20\times20^{-6})} = -795,7747j\ \Omega$$

$$V_o = \frac{10.-j795.7747}{100-j795,7747} = 7,8445-1,2371j$$

$$V_o = 9,92197\ \angle -7,1624\ V$$

$$V_y = 9,92197/\sqrt{2} =$$

$$V_y = 7,02\ V$$

$$I = \frac{\frac{10}{100-j795,7747}}{\sqrt{2}} = 8,81\times10^{-3}\ \angle 82,837\ A$$

Con 50 H

$$Z = \frac{1}{j2\pi(50)(20\times10\cdot6)} = -159,1549\ j\ \Omega$$

$$V_o = \frac{10.-j159,1549}{100-j159,1549} = 8,4673\ \angle -32,1419$$

$$V_v = 8,4673/\sqrt{2}$$

$$V_v = 5,9873\ V$$

$$I = \frac{\frac{10}{100-j159,1549}}{\sqrt{2}} = 37,62\times10^{-3}\ \angle 57,858\ A$$

Con 100 H

$$Z = \frac{1}{j2\pi(100)(20\times10^{-6})} = -79,5775j\ \Omega$$

$$V_o = \frac{10.-j79,5775}{100-j79,5775}$$

$$V_o = 6,22\ \angle -141,488$$

$$V_v = 6,22/\sqrt{2}$$
$$V_v = 4,398\ V$$

$$I = \frac{\frac{10}{100-j79,5775}}{\sqrt{2}}$$

$$I = 55,329\times10^{-3}\ \angle 38,51\ A$$

Con 500 H

$$Z = \frac{1}{j2\pi(500)(20\times10^{-6})}$$

$$Z = -15,9155\ j\Omega$$

$$V_o = 10.\ \frac{-15,9155j}{100-j15,9155}$$

$$V_o = 1,5717\ \angle -80,96\ V$$

$$V_v = 1,5717/\sqrt{2}$$
$$V_v = 1,11\ V$$

$$I = \frac{\frac{10}{100-j15,9155}}{\sqrt{2}}$$

$$I = 69,83\times10^{-3}\ \angle 9,04\ A$$

Con 1000 H

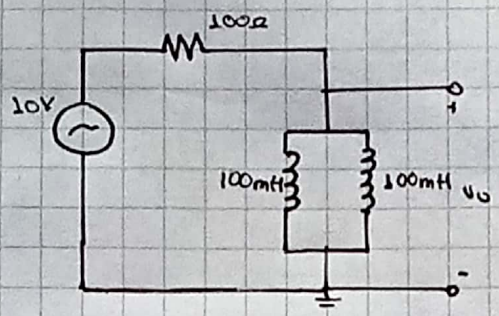
$$Z = \frac{1}{j2\pi(1000)(20\times10^{-6})} = -7,9577j\ \Omega$$

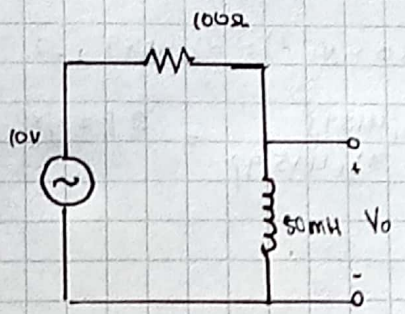
$$V_o = 10.\ \frac{-7,9577j}{100-j7,9577} = 0,7933\ \angle -85,45\ V$$

$$V_v = 0,7933/\sqrt{2} = 0,5609\ V$$

$$I = \frac{\frac{10}{100-j7,9577}}{\sqrt{2}}$$

$I = 70{,}487 \times 10^{-3} \angle 4{,}54$ A




$Z = j\,2\pi(0)(50 \times 10^{-6}) = 0$ ; $V_0 = 0$ ; $V_1 = 0$ ; $\bar{I} = 0$

Con 10 H

$Z = j\,2\pi(10)(50 \times 10^{-3}) =$

$Z = 3{,}1416\,j\,\Omega$

$$V_0 = 10 \cdot \frac{3{,}1416j}{100 + 3{,}1416j} = 314 \angle 88{,}2 \text{ mV}$$

$V_V = 314/\sqrt{2}$

$V_V = 222 \text{ mV}$

$$I = \frac{10}{\frac{100 + 3{,}1416j}{\sqrt{2}}}$$

$I = 70{,}67 \angle -1{,}79$ mA

Con 50 H

$Z = j\,2\pi(50)(50 \times 10^{-3}) =$

$Z = 15{,}7079\,j\,\Omega$

$$V_0 = 10 \cdot \frac{15{,}7079j}{100 + 15{,}7079j} = 1{,}57 \angle -8{,}63 \text{ V}$$

$V_V = 1{,}57/\sqrt{2}$

$V_V = 1{,}11$ V

$$I = \frac{10}{\frac{100 + 15{,}7079}{\sqrt{2}}}$$

$I = 69{,}85 \angle -8{,}93$ mA

Con 100 H

$Z = j2\pi(100)(50\times10^{-3}) = 31,4159\,j\ \Omega$

$V_o = 10 \cdot \frac{31,4159j}{100 + 31,4159j} = 3\angle 72,5^{\circ}\ V$

$V_V = 3/\sqrt{2}$

$V_v = 2,12\ V$

$I = \frac{10}{\frac{100+31,4159}{\sqrt{2}}}$

$I = 67,45\angle -17,4\ mA$

Con 500H

$Z = j2\pi(500)(50\times10^{-3}) = 157,0796j$

$V_o = 10 \cdot \frac{157,0796}{100+157,0796}$

$V_o = 8.4358\angle 32,48^{\circ}\ V$

$V_V = 8,4356/\sqrt{2}$

$V_v = 5,9649\ V$

$I = \frac{10}{\frac{100+157,0796j}{\sqrt{2}}}$

$I = 37,07\angle -57,5^{\circ}\ mA$

Con 1000H

$Z = j2\pi(1000)(50\times10^{-3}) = 314,159j\ \Omega$

$V_o = 10 \cdot \frac{314,159j}{100+314,159j}$

$V_o = 9,53\angle 17,66\ V$

$V_V = 9,53/\sqrt{2}$

$V_v = 6,738\ V$

$I = \frac{10}{\frac{100+314,159j}{\sqrt{2}}}$

$I = 21,45\angle -72,3\ mA$