

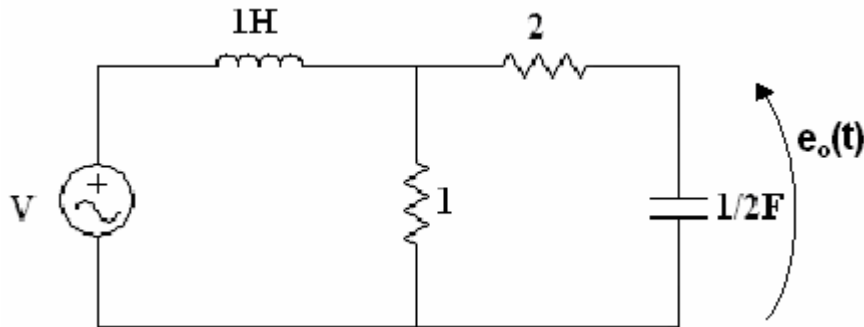
LISTA DE EXERCÍCIO 3

REGIME PERMANENTE SENOIDAL

Utilizando os métodos conhecidos para resolução de circuitos, encontre o que se pede.

1. $e_o(t) = ?$

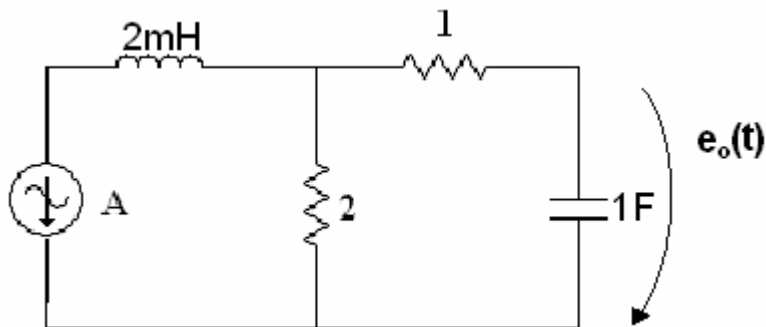
$V = 3 \cos(2t + 30^\circ)$



Resp.: $e_o(t) = 0,468 \cos (2t - 111,33^\circ) V$

2. $e_o(t) = ?$

$A = 2 \sin(10t - 10^\circ)$



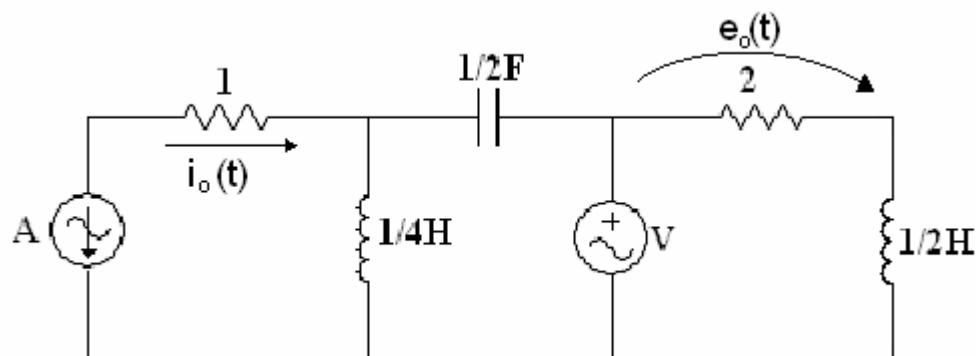
Resp.: $e_o(t) = 0,133 \sin (10t - 98,091^\circ) V$

3. $i_o(t) = ?$

$e_o(t) = ?$

$A = 2 \cos(8t - 20^\circ)$

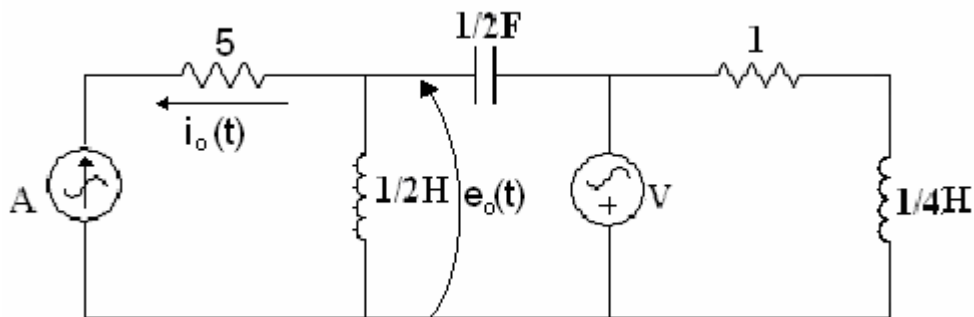
$V = 6 \cos(8t + 60^\circ)$



Resp.: $e_o(t) = 2,683 \cos (8t + 176,565^\circ) V$

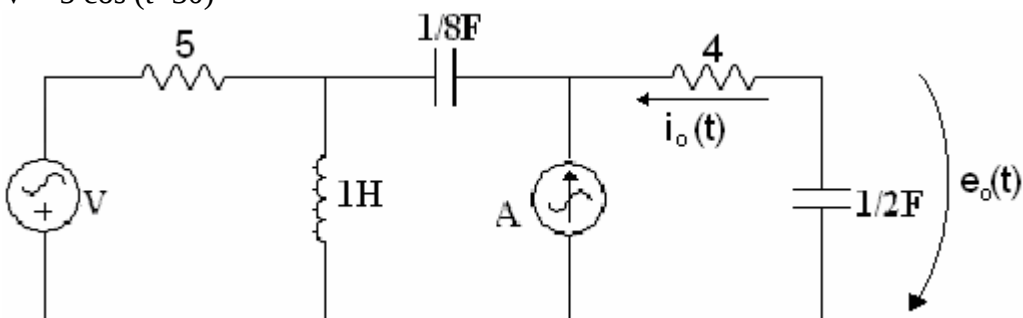
$i_o(t) = 2 \cos (8t + 160^\circ) A$

4. $i_o(t) = ?$
 $e_o(t) = ?$
 $A = 1 \text{ sen } (5t - 80^\circ)$
 $V = 3 \text{ sen } 5t$



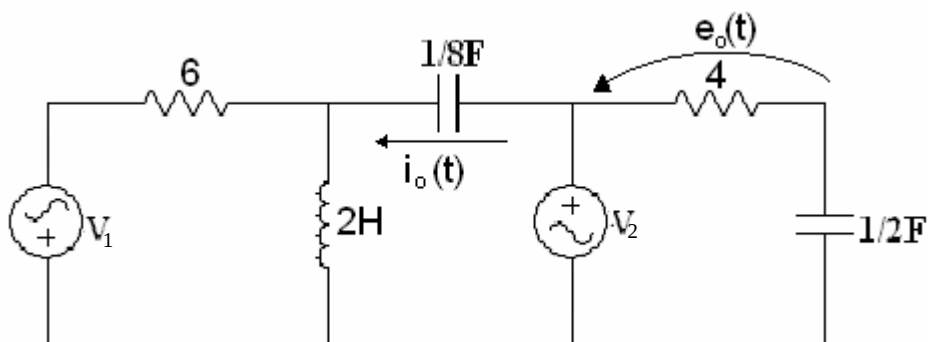
Resp.: $e_o(t) = 3,104 \text{ sen } (5t + 178,486^\circ) \text{ V}$
 $i_o(t) = 1 \text{ sen } (5t + 100^\circ) \text{ A}$

5. $i_o(t) = ?$
 $e_o(t) = ?$
 $A = 1/2 \cos (t - 10^\circ)$
 $V = 5 \cos (t + 30^\circ)$



Resp.: $e_o(t) = 0,886 \cos (t + 63,105^\circ) \text{ V}$
 $i_o(t) = 0,443 \cos (t - 26,895^\circ) \text{ A}$

6. $i_o(t) = ?$
 $e_o(t) = ?$
 $V_1 = 1/5 \text{ sen } (2t - 40^\circ)$
 $V_2 = 5 \text{ sen } (2t - 30^\circ)$



Resp.: $e_o(t) = 4,851 \text{ sen } (2t - 15,964^\circ) \text{ V}$
 $i_o(t) = 1,044 \text{ sen } (2t + 169,836^\circ) \text{ A}$

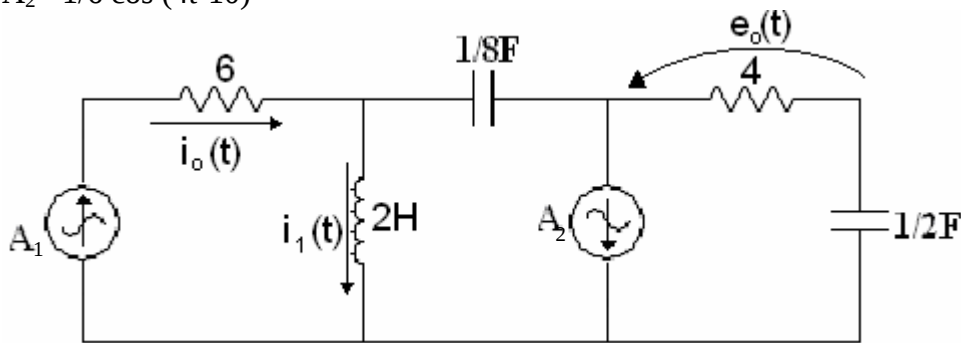
7. $i_o(t) = ?$

$i_1(t) = ?$

$e_o(t) = ?$

$A_1 = 1/8 \cos(4t+60^\circ)$

$A_2 = 1/6 \cos(4t-10^\circ)$



Resp.: $e_o(t) = 0,674 \cos(4t + 151,003^\circ) \text{ V}$

$i_1(t) = 0,361 \cos(4t - 72,267^\circ) \text{ A}$

$i_o(t) = 0,125 \cos(4t + 60^\circ) \text{ A}$

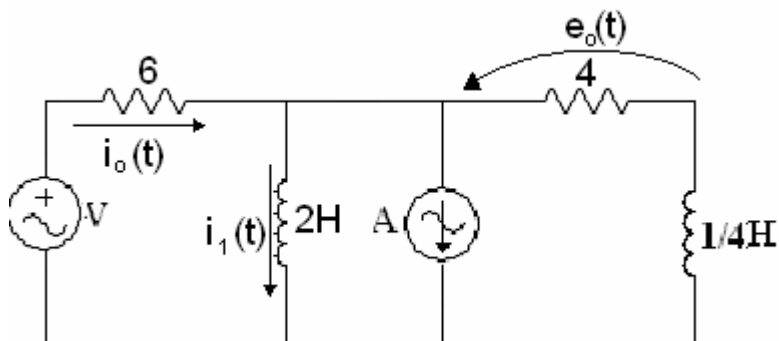
8. $i_o(t) = ?$

$i_1(t) = ?$

$e_o(t) = ?$

$A = 1/4 \sin(4t+60^\circ)$

$V = 6 \sin(4t-10^\circ)$



Resp.: $e_o(t) = 2,072 \sin(4t - 14,036^\circ) \text{ V}$

$i_1(t) = 0,267 \sin(4t - 90^\circ) \text{ A}$

$i_o(t) = 0,653 \sin(4t - 15,463^\circ) \text{ A}$

9. $i_o(t) = ?$

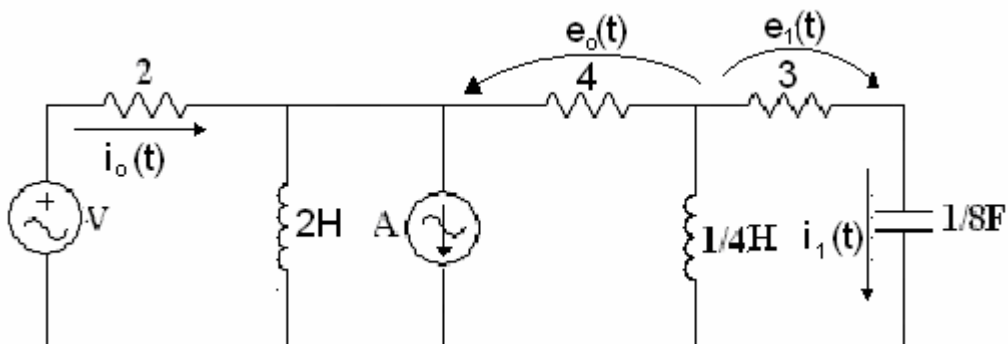
$i_1(t) = ?$

$e_o(t) = ?$

$e_1(t) = ?$

$A = 1/8 \text{ sen } (t+30)$

$V = 10 \text{ sen } (t-50)$



Resp.: $e_o(t) = 4,965 \text{ sen } (t - 157,727^\circ) \text{ V}$

$i_1(t) = 0,058 \text{ sen } (t - 9,324^\circ) \text{ A}$

$i_o(t) = 6,593 \text{ sen } (t - 23,661^\circ) \text{ A}$

$e_1(t) = 0,174 \text{ sen } (t + 170,676^\circ) \text{ V}$