

UNIVERSIDADE FEDERAL DE VICOSA – UFV
DEPARTAMENTO DE ENGENHARIA ELÉTRICA - DEL
CURSO DE ENGENHARIA ELÉTRICA

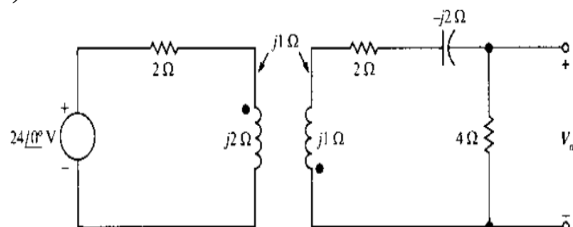
(Prof. Tarcísio Pizziolo)

4ª Lista de Exercícios - ELT221 – Circuitos Elétricos II

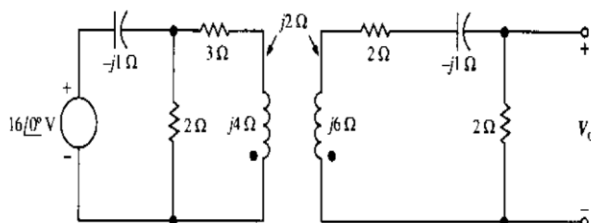
Circuitos Acoplados Magneticamente

1) Determine V_o nos circuitos dados a seguir.

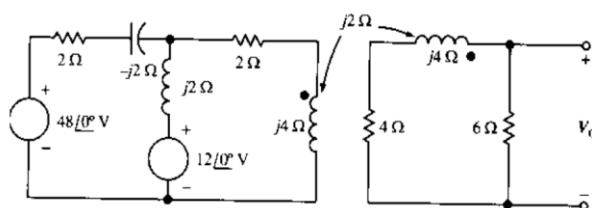
a)



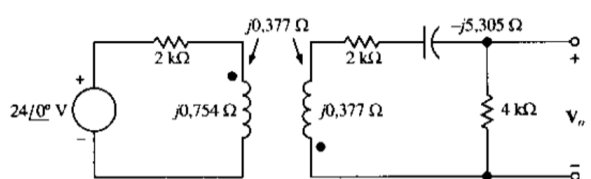
b)



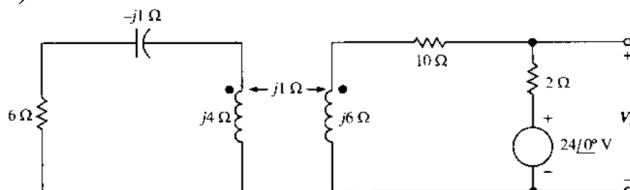
c)



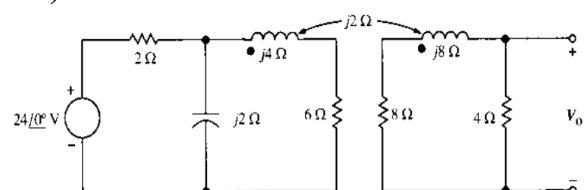
d) A frequência da fonte é 60 Hz



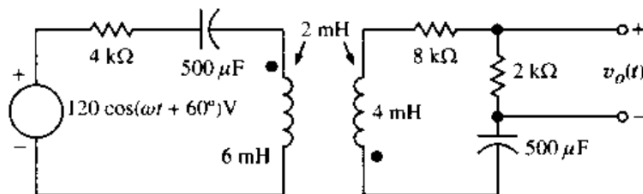
e)



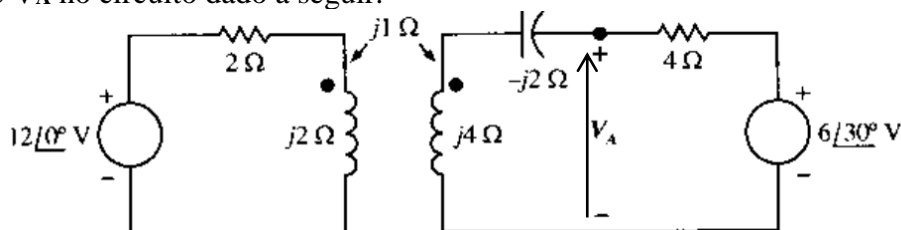
f)



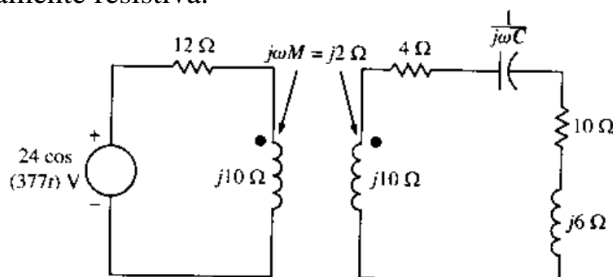
g) A frequência da fonte é 400 Hz.



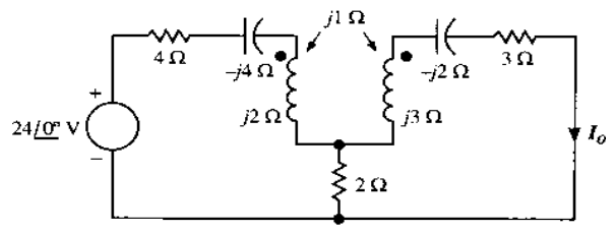
2) Determine V_A no circuito dado a seguir.



3) Dado o circuito, determine o valor do capacitor C que fará com que a impedância refletida para o primário seja puramente resistiva.



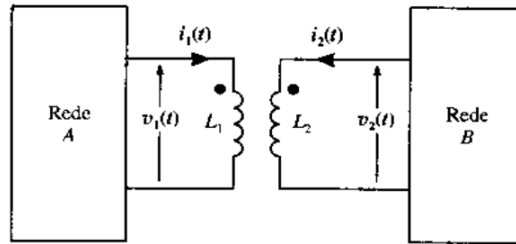
4) Determinar I_o .



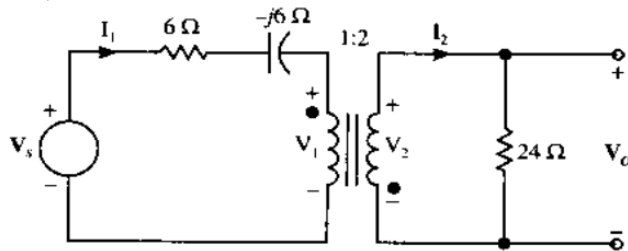
5) As correntes no circuito a seguir são:

$$\begin{cases} i_1(t) = 16 \cos(377t - 45^\circ) \text{ mA} \\ i_2(t) = 3 \cos(377t - 45^\circ) \text{ mA} \end{cases}$$

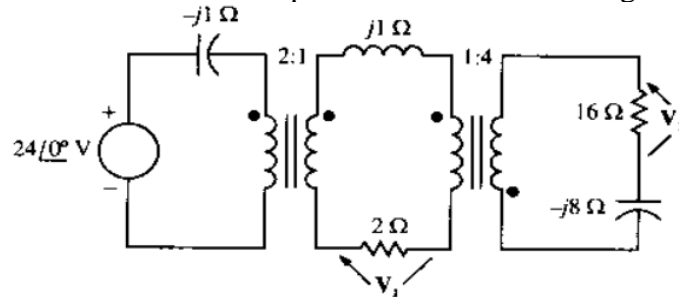
Se os valores das indutâncias são $L_1 = 2 \text{ H}$, $L_2 = 8 \text{ H}$ e $M = 3 \text{ H}$, determine as tensões $v_1(t)$ e $v_2(t)$.



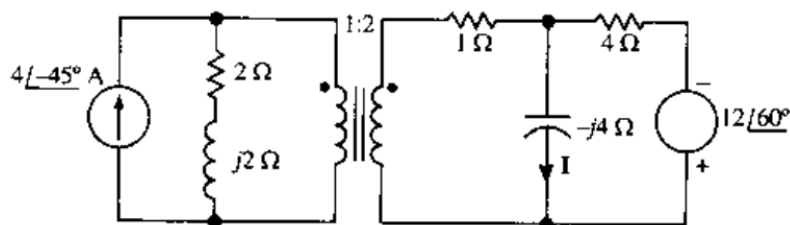
6) Dado que $V_o = 48\angle 30^\circ \text{ V}$, determine V_s .



7) Determine a impedância de entrada vista pela fonte no circuito a seguir.



8) Determine a corrente I .



9) Determine a corrente I_s .

