

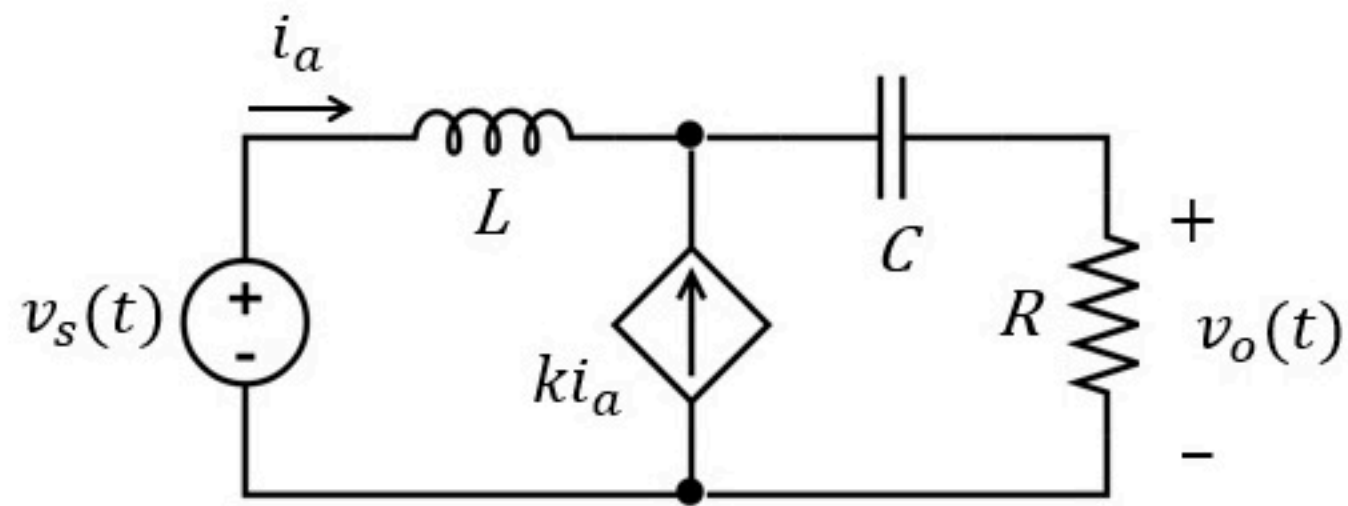
Phasors 008

Unlimited Attempts.

$$v_s(t) = A_1 \cdot \cos(1000t)$$

Find steady state voltage

$$v_o(t) = A_2 \sqrt{2} \cdot \cos(1000t + B_2) \quad \text{with } -180^\circ < B_2 \leq 180^\circ$$



Given Variables:

A1 : 5 V

L : 20 mH

C : 20 μ F

R : 45 ohm

k : 3 A/A

Calculate the following:

A2 (V) :

2.5



B2 (degrees) :

45



Hint: Use nodal analysis or KVL/KCL.