

ENSC3021 Tutorial Problems 3A

Martin T. Hill, 16th March 2019

Question 1.

It is suggested you use the phasor domain to solve this problem. With regards to figure 1:

- A) Find the steady state $v_x(t)$ if $v_{s1}(t) = 10 \cos(1000 t)$ Volts and $v_{s2}(t) = 10 \sin(1000 t)$ Volts.
- B) Find the steady state $v_x(t)$ if $v_{s1}(t) = 10 \cos(2000 t)$ Volts and $v_{s2}(t) = 10 \sin(1000 t)$ Volts.

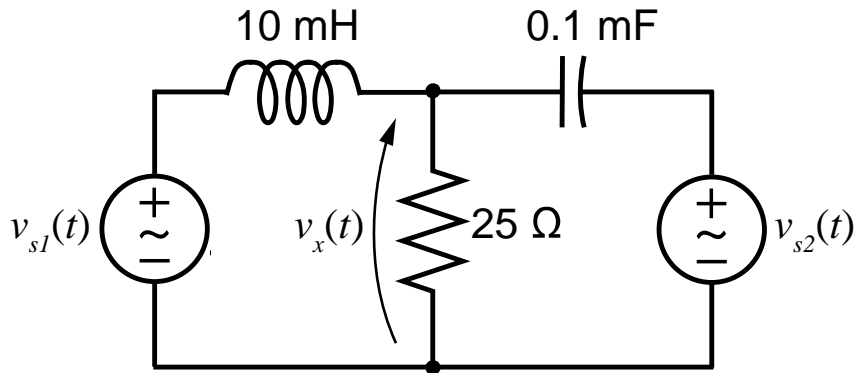


Figure 1.

Question 2. Find the Thevenin equivalent circuit at the terminals x y for the circuit of figure 2.

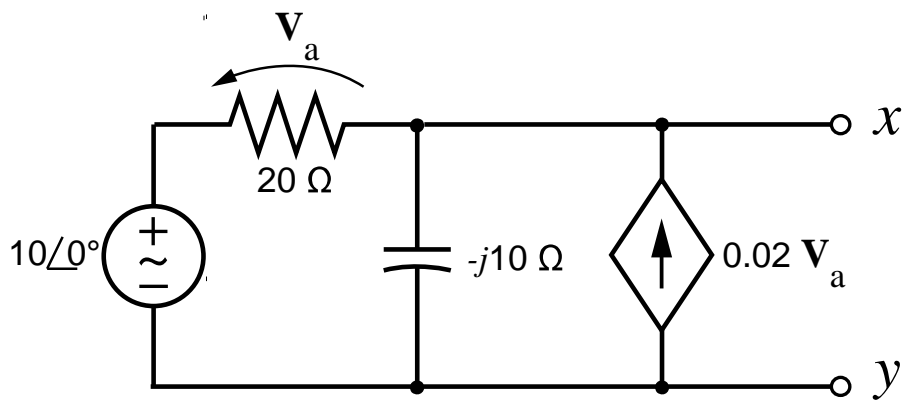


Figure 2.