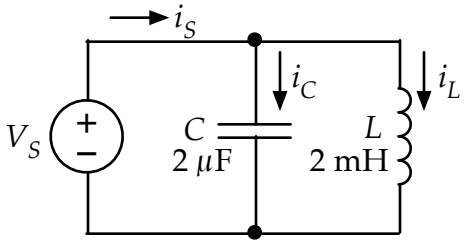
EE 201 — HW 6-14 Name_____

In the circuit shown at right, the voltage source is sinusoidal with

$V_S(t) = V_m\cos(\omega t)$,

where V_m = 5 V and ω = 2500 rad/s. Write the expression for the total current flowing through the source. Then repeat for ω = 5000 rad/s.



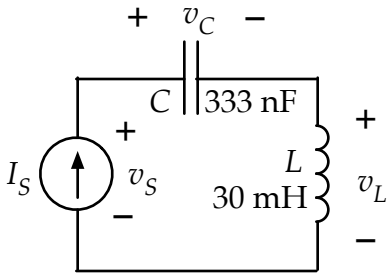
i_S (ω = 2500 rad/s) = _____

i_S (ω = 5000 rad/s) = _____

In the circuit shown at right, the current source is sinusoidal with

$I_S(t) = I_m\sin(\omega t)$,

where I_m = 20 mA and ω =20,000 rad/s. Write the expression for the total voltage across the source. Then repeat for ω = 10,000 rad/s.



v_S (ω = 20,000 rad/s) = _____

v_S (ω = 10,000 rad/s) = _____

Write your answers — and whatever work will fit — on this sheet. Staple any sheets with additional work behind.