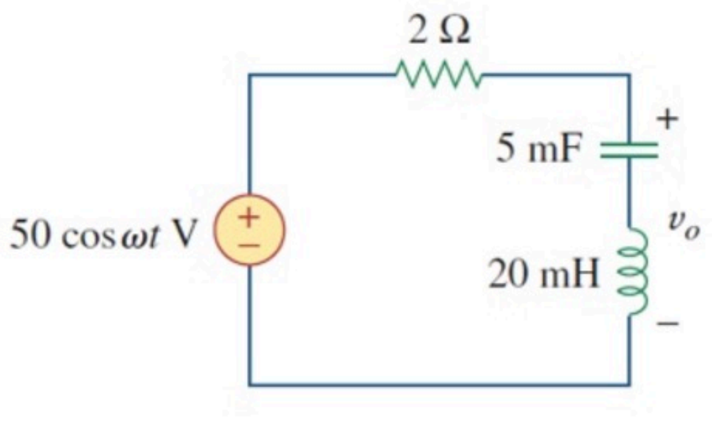
PP Phasors 015

Unlimited Attempts.

Find the value of ω that results in $v_o = 0$ V.

(v_o is the voltage across the inductor and capacitor together)



Note: This is an example of 'resonance'. For each ω, the system behaves differently (i.e., v_o is a function of ω). For this one particular value of ω, however, the inductor and capacitor perfectly 'compensate' for each other.

Given Variables:

. : . .

Calculate the following:

w (rad/s) :

100 ✓

Hint: What should be the impedance of C and L in series for vo = 0?