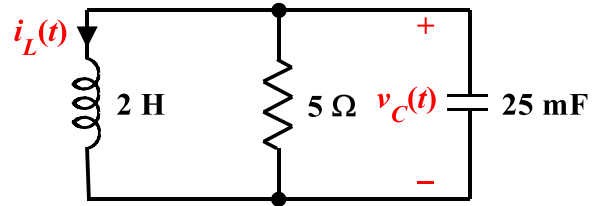


EE 2240
Problem #59

- a. Show that the circuit shown below is underdamped,



and can be described by

$$\frac{d^2 i_L}{dt^2} + 8 \frac{di_L}{dt} + 20 i_L = 0$$

- b. If $i_L(0) = 2$ A and $v_C(0) = -1$ V, determine $i_L(t)$ for $t \geq 0$.

- c. Use PSpice and PROBE to verify your result.