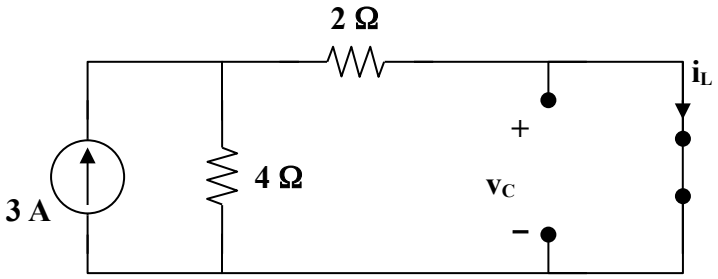
Chapter 6, Solution 46.

Under dc conditions, the circuit is as shown below:



By current division,

$$i_L = \frac{4}{4+2}(3) = \mathbf{2A}, \qquad v_c = \mathbf{0V}$$

$$w_L = \frac{1}{2} L\, i_L^2 = \frac{1}{2}\left(\frac{1}{2}\right)(2)^2 = \mathbf{1J}$$

$$w_c = \frac{1}{2} C\, v_c^2 = \frac{1}{2}(2)(v) = \mathbf{0J}$$