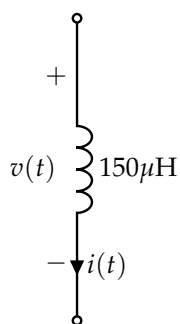
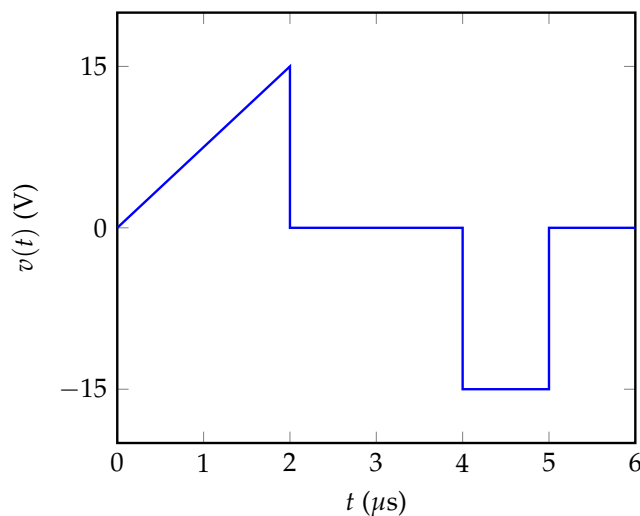


1. Determining Current for an Inductor (Hambley Exercise 3.7)

The voltage across a $150\text{-}\mu\text{H}$ inductance is shown in Figure 1. The initial current is $i(0) = 0$.



(a) Example Circuit



(b) Plot of $v(t)$

Figure 1

Find and plot the current $i(t)$ to scale versus time. Assume that the references for $v(t)$ and $i(t)$ have the passive configuration (current enters through the (+) terminal of the passive component).

2. Calculating Equivalent Inductance (Hambley Exercise 3.10)

Find the equivalent inductance for the circuit shown in Figure 2.

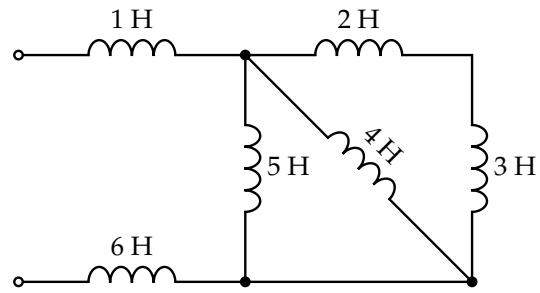


Figure 2: Inductor Circuit

3. Voltage, Power, and Energy for an Inductance (Hambley Example 3.6)

The current through a 5 H inductance is shown in Figure 3.

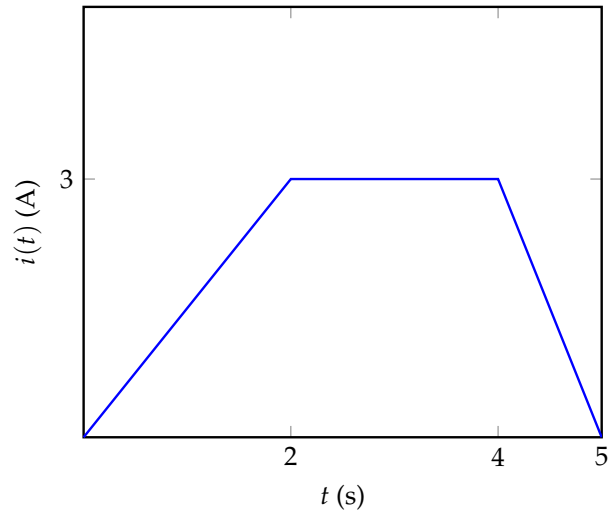


Figure 3: Plot of $i(t)$

Plot the voltage, power and stored energy to scale versus time for t between 0 and 5 s

4. Steady-State Analysis (Hambley Example 4.1)

Find v_x and i_x for the circuit shown in Figure 4 for $t \gg 0$.

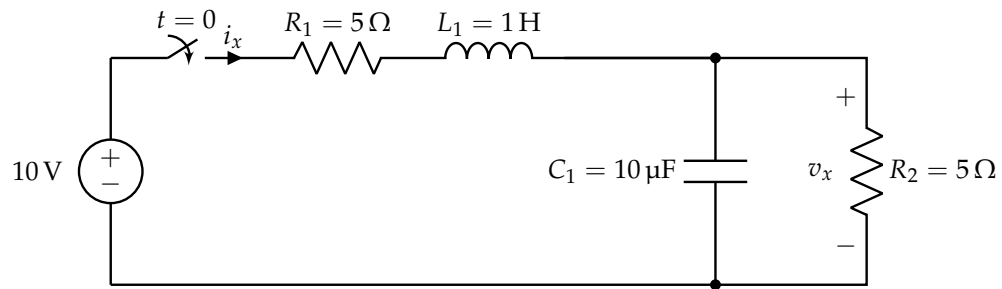


Figure 4