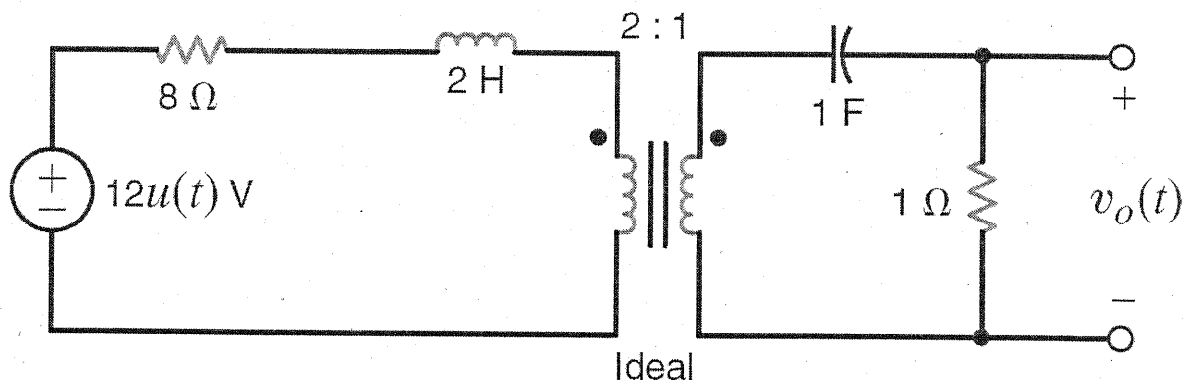
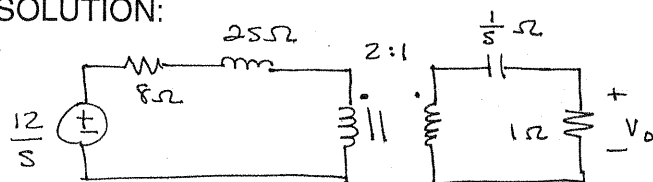


**14.37** Find  $v_o(t)$ , for  $t > 0$ , in the network in Fig. P14.37.

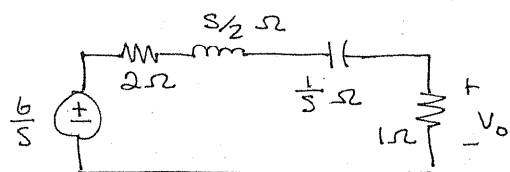


**Figure P14.37**

**SOLUTION:**



$$n = 1/2$$



$$V_o = \frac{6}{s} \left[ \frac{1}{2 + s/2 + \frac{1}{s} + 1} \right] = \frac{12}{s^2 + 6s + 2}$$

$$V_o = \frac{A}{s + 0.35} + \frac{B}{s + 5.65}$$

$$A = 2.28 \quad B = -2.28$$

$$v_o(t) = 2.28 [e^{-0.35t} - e^{-5.65t}] u(t) \text{ V}$$