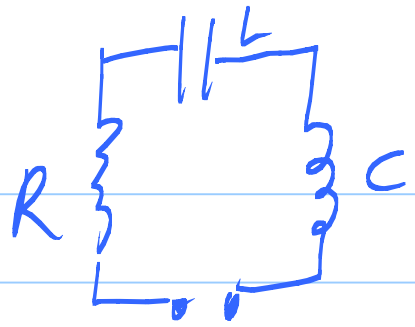
240.4S.



$$v(t) = u(t-0) - u(t-2)$$

p. 238. Ex. 4. $L\frac{dI}{dt} + RI + \frac{1}{C}Q = v(t)$

$$Q = \int_0^t I(\tau)\,d\tau. \qquad \mathcal{L}[Q] = \mathcal{L}\left[\int_0^t I(\tau)\,d\tau\right]$$

$Q(0) = 0$ ✓

$$= \frac{1}{s}\mathcal{L}(s)$$

$$L\left(s\mathcal{L}(s)\right) + R\mathcal{L}(s) + \frac{1}{C}\frac{1}{s}\mathcal{L}(s) = \frac{1}{s} - \frac{e^{-2s}}{s}$$