

Solutions

Each answer shows the steps, then the **result**.

2.1

- $\tau = \frac{L}{R} = \frac{0.40}{20} = 0.020 \text{ s}$

2.2

- zero (the inductor opposes the sudden change)

2.3

- $I = \frac{\varepsilon}{R} = \frac{12}{6.0} = 2.0 \text{ A}$

3.1 B

3.2 B

3.3

(a)

- $\tau = \frac{L}{R} = \frac{0.25}{5.0} = 0.050 \text{ s}$

(b)

- $I = \frac{\varepsilon}{R} = \frac{10}{5.0} = 2.0 \text{ A}$