

P #31

Ch 18 - pg 581

$$a) \quad \tau = R \cdot C \\ = (2 \times 10^6 \Omega)(6 \times 10^{-6} F)$$

$$R = 2 \times 10^6 \Omega \\ C = 6 \times 10^{-6} F$$

$$\tau = 12 \text{ sec}$$

$$b) \quad V = 20 V \\ C = 6.0 \times 10^{-6} F$$

$$C = \frac{Q}{V}$$

$$6.0 \times 10^{-6} F = \frac{Q}{20 V}$$

$$Q = 1.2 \times 10^{-4} C$$