Solutions

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

2.1

- $R_s = 6.0 + 6.0 = 12\ \Omega$

2.2

- $\dfrac{1}{R_p} = \dfrac{1}{6.0} + \dfrac{1}{6.0} = \dfrac{2}{6.0} \Rightarrow R_p = 3.0\ \Omega$

2.3

- $V = \varepsilon - Ir = 12 - 2.0(0.50) = 11\ \text{V}$

3.1 B

3.2 B

3.3

(a)

- $\dfrac{1}{R_p} = \dfrac{1}{3.0} + \dfrac{1}{6.0} = \dfrac{3}{6.0} \Rightarrow R_p = 2.0\ \Omega$

(b)

- $I = \dfrac{V}{R_p} = \dfrac{12}{2.0} = 6.0\ \text{A}$