Solutions

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

2.1

- $P = IV = 2.5 \times 12 = 30$ W

2.2

- $P = I^2R = (3.0)^2 \times 10 = 90$ W

2.3

- $E = Pt = 100 \times (5.0 \times 60) = 3.0 \times 10^4$ J

3.1 A

3.2 B

3.3

(a)

- $R = \dfrac{P}{I^2} = \dfrac{48}{16} = 3.0\ \Omega$

(b)

- $V = IR = 4.0 \times 3.0 = 12$ V