Solutions

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

2.1

- $R = \dfrac{V}{I} = \dfrac{6.0}{2.0} = 3.0\ \Omega$

2.2

- it increases (resistance is proportional to length)

2.3

- a straight line through the origin (constant resistance)

3.1 A

3.2 C

3.3

(a)

- $R = \dfrac{9.0}{0.30} = 30\ \Omega$

(b)

- $I = \dfrac{V}{R} = \dfrac{15}{30} = 0.50\ \text{A}$