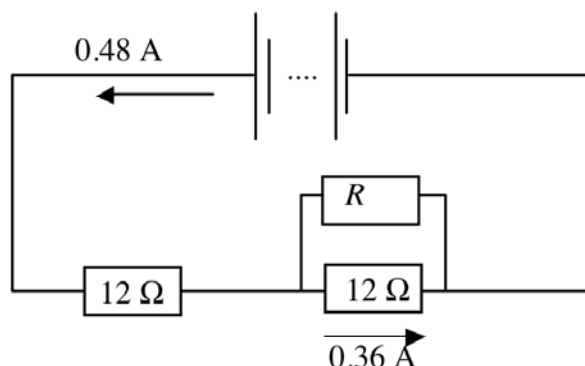


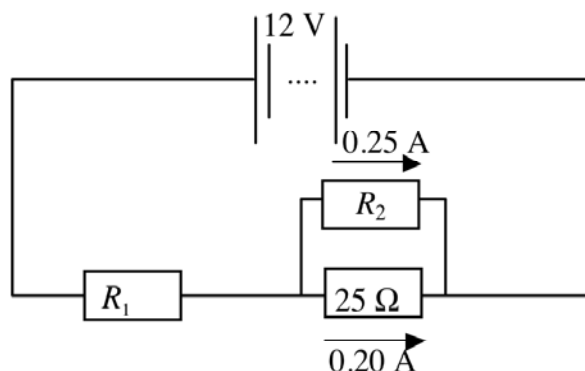
Support Worksheet – Topic 5, Worksheet 2

- 1 In the circuit below the battery has negligible internal resistance.



Calculate:

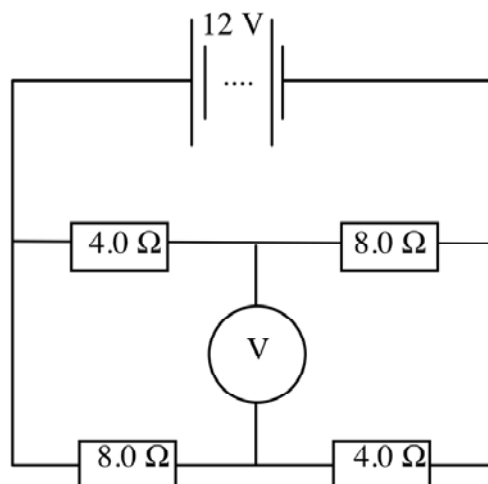
- a the emf of the battery. [2]
 - b the total power dissipated in the circuit. [2]
 - c the value of resistance R . [2]
- 2 In the circuit below the battery has negligible internal resistance and emf 12 V .



Calculate the value of:

- a resistance R_2 [2]
- b resistance R_1 . [2]

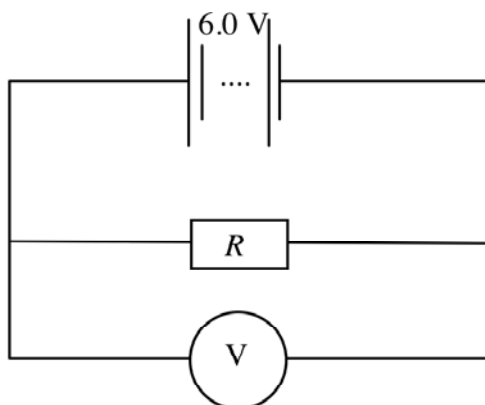
- 3 In the circuit below the battery has emf 12 V and negligible internal resistance. The voltmeter is ideal.



Calculate the magnitude of the reading of the voltmeter.

[3]

- 4 In the circuit below the battery has emf 6.0 V and internal resistance $2.0\ \Omega$. The total power dissipated in the circuit is 9.0 W.



Calculate:

- a the reading of the (ideal) voltmeter.

[2]

- b the value of resistance R .

[1]