

- 25** In a circuit, two identical lamps are in parallel. The parallel pair of lamps is in series with a resistor and a battery.

The battery does 120 J of work moving 50 C of charge around the circuit in time t .

In each lamp, 40 J of work is done by the charge that passes through it in time t .

The electromotive force (e.m.f.) of the battery is E and the potential difference (p.d.) across one lamp is V .

Which statement about E and V is correct?

- A** E is 2.4 V and V is 0.80 V.
- B** E is 2.4 V and V is 1.6 V.
- C** E is 4.8 V and V is 2.4 V.
- D** E is 4.8 V and V is 4.8 V.