

- 34** The potential difference (p.d.) across a fixed resistor is  $V$ . The power dissipated in the resistor is  $5.0\text{ W}$ .

The p.d. across the resistor then changes to a new value. With the new p.d. the energy transferred to the resistor in a time of  $2.25\text{ s}$  is  $45.0\text{ J}$ .

What is the new p.d. across the resistor?

**A**  $\frac{1}{2}V$

**B**  $2V$

**C**  $3V$

**D**  $4V$

- 35** The diagram shows a circuit that contains a fixed resistor.