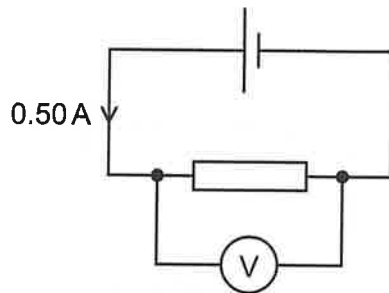


17 The diagram shows a circuit.



In 2.00 minutes, the cell in the circuit supplies 240 J of electrical energy. The voltmeter connected across the resistor in the circuit shows a reading of 1.50 V and there is a constant current of 0.50 A in the circuit.

At which rate is the electrical energy transferred into thermal energy in the internal resistance of the cell?

A 0.750 W

B 1.00 W

C 1.25 W

D 2.00 W