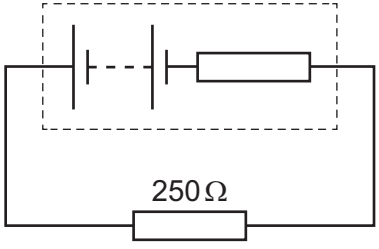
31 A battery with a constant internal resistance is connected to a resistor of resistance 250 Ω, as shown.



The current in the resistor is 40 mA for a time of 60 s. During this time 6.0 J of energy is dissipated by the internal resistance.

What is the energy supplied to the external resistor during the 60 s and the electromotive force (e.m.f.) of the battery?

	energy / J	e.m.f. / V
A	30	2.5
B	30	7.5
C	24	10.0
D	24	12.5

[Turn over