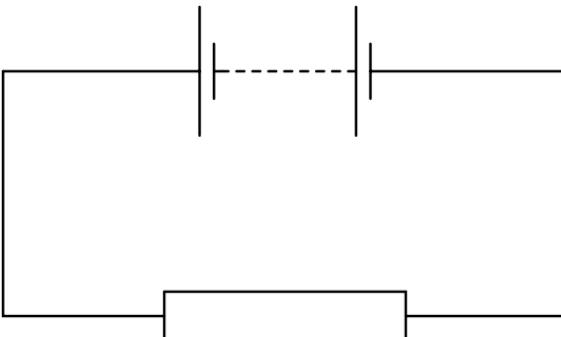


- 31 In the circuit below, the battery converts an amount E of chemical energy to electrical energy when charge Q passes through the resistor in time t .



Which expressions give the e.m.f. of the battery and the current in the resistor?

	e.m.f.	current
A	EQ	Q/t
B	EQ	Qt
C	E/Q	Q/t
D	E/Q	Qt

- 32 The filament of a 240 V, 100 W electric lamp heats up from room temperature to its operating