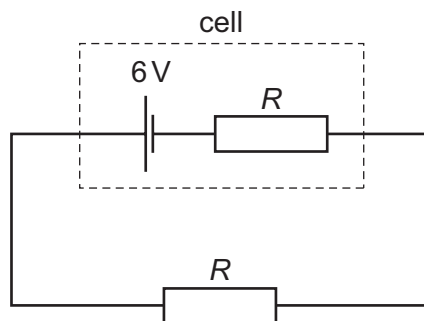34 A cell has an electromotive force (e.m.f.) of 6V and internal resistance R. An external resistor, also of resistance R, is connected across this cell, as shown.

cell

6 V

R

R

Power P is dissipated by the external resistor.

The cell is replaced by a different cell that has an e.m.f. of 6V and negligible internal resistance.

What is the new power that is dissipated in the external resistor?

A 0.5P **B** P **C** 2P **D** 4P

Space for working