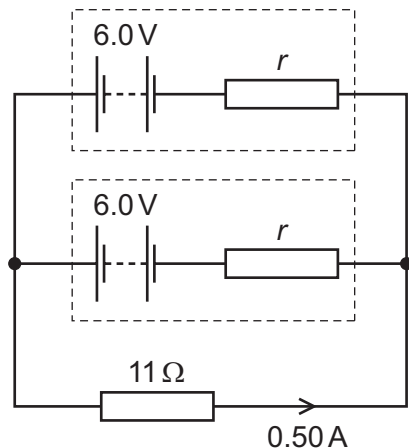


- 37 Two identical batteries each have e.m.f.  $6.0\text{ V}$  and internal resistance  $r$ . The batteries are connected to an external resistor of resistance  $11\ \Omega$ , as shown.



The current in the external resistor is  $0.50\text{ A}$ .

What is the internal resistance  $r$  of each battery?

- A**  $1.0\ \Omega$       **B**  $2.0\ \Omega$       **C**  $4.0\ \Omega$       **D**  $6.5\ \Omega$