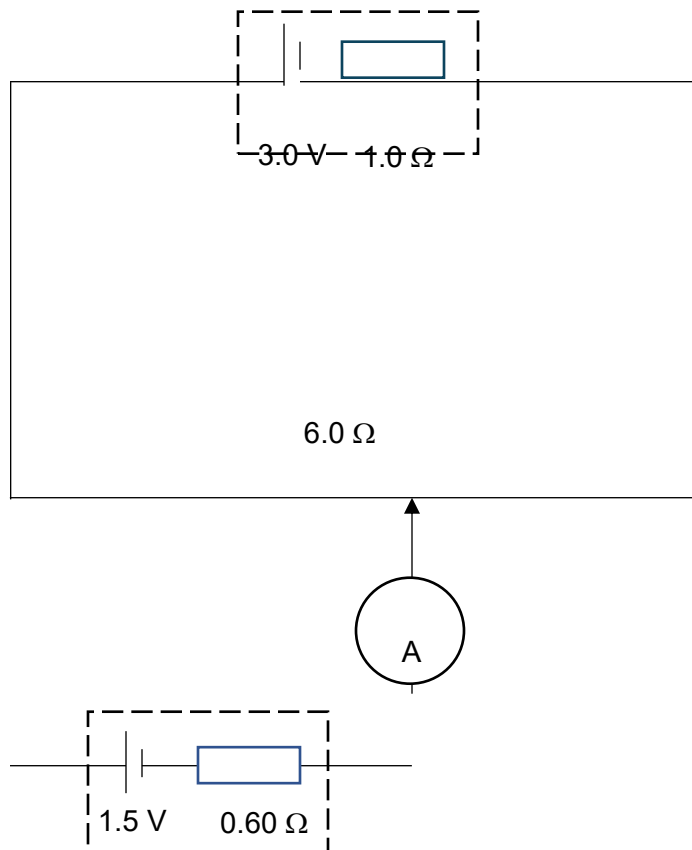


- 22** A potentiometer circuit is set up by connecting a cell with e.m.f.  $3.0\text{ V}$  and internal resistance  $1.0\ \Omega$  across a resistance wire of length  $1.0\text{ m}$  and resistance  $6.0\ \Omega$ .

Another cell of e.m.f.  $1.5\text{ V}$  and internal resistance  $0.60\ \Omega$  is connected to the bottom of the potentiometer:



What is the balance length for the circuit?

- A**  $0.086\text{ m}$       **B**  $0.10\text{ m}$       **C**  $0.50\text{ m}$       **D**  $0.58\text{ m}$

