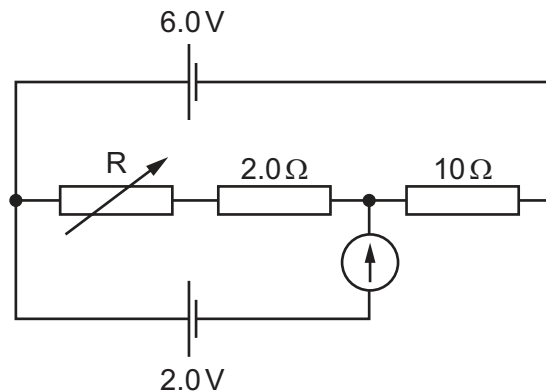


- 37** The diagram shows a variable resistor R and two fixed resistors connected in series in a circuit to act as a potential divider.



The cell of electromotive force (e.m.f.) 6.0V has negligible internal resistance. A cell of e.m.f. 2.0V and a galvanometer are connected into the potential divider. The resistance of R is varied until the galvanometer reads zero.

What is the resistance of resistor R ?

- A** 3.0Ω **B** 5.0Ω **C** 8.0Ω **D** 18Ω