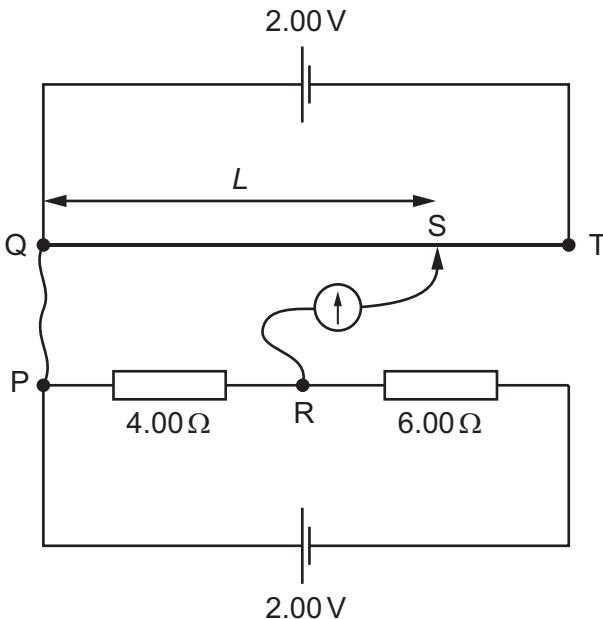


- 36 A 100 cm potentiometer wire QT is connected in series with a 2.00 V cell. Another circuit, consisting of a 2.00 V cell in series with resistors of resistance 4.00Ω and 6.00Ω , is set up alongside the potentiometer. Connections PQ and RS are then made so that the potential difference (p.d.) across the 4.00Ω resistor is balanced against the p.d. across a length L of potentiometer wire. Both cells have negligible internal resistance.



What is the balance length L ?

A 0 cm

B 40 cm

C 60 cm

D 100 cm