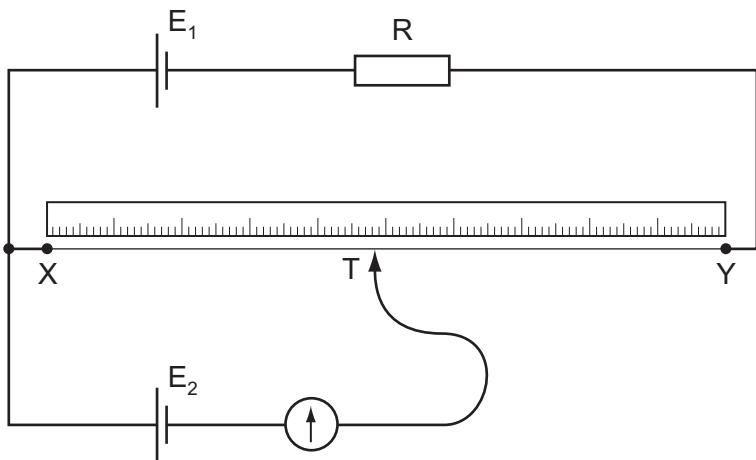


37 The diagram shows a potentiometer circuit.



The contact T is placed on the wire and moved along the wire until the galvanometer reading is zero. The length XT is then noted.

In order to calculate the potential difference per unit length of the wire XY, which value must also be known?

- A the e.m.f. of the cell  $E_1$
- B the e.m.f. of the cell  $E_2$
- C the resistance of resistor R
- D the resistance of the wire XY

**Space for working**