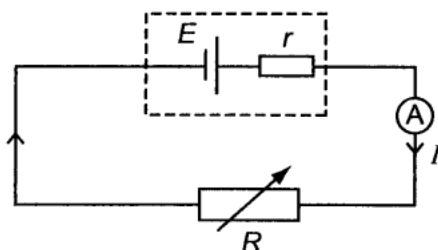


- 21 A battery of e.m.f.  $E$  and internal resistance  $r$  delivers a current  $I$  through a variable resistor  $R$ .



$R$  is set at two different values and the corresponding currents  $I$  are measured using an ammeter of negligible resistance.

$R / \Omega$	$I / \text{A}$
1.0	3.0
2.0	2.0

What is the value of the e.m.f.  $E$ ?

**A** 3.0 V

**B** 3.5 V

**C** 4.0 V

**D** 6.0 V