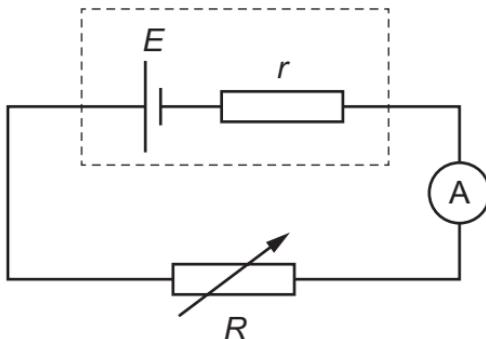


- 35 A cell has internal resistance  $r$  and electromotive force (e.m.f.)  $E$ . The cell is connected in series with an ammeter and a variable resistor of resistance  $R$ .



When  $R$  is  $10\Omega$  the ammeter reads  $0.3\text{ A}$ .

When  $R$  is  $5\Omega$  the ammeter reads  $0.4\text{ A}$ .

What is the value of  $E$ ?

**A**  $0.5\text{ V}$

**B**  $2\text{ V}$

**C**  $3\text{ V}$

**D**  $6\text{ V}$