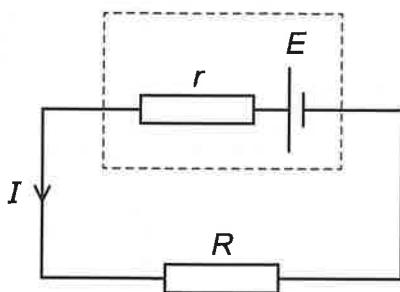


- 19 A cell of electromotive force (e.m.f.) E and internal resistance r is connected to a resistor of resistance R , as shown.



When $R = 4.0 \Omega$ the current $I = 0.50 \text{ A}$.

When $R = 10 \Omega$ the current $I = 0.25 \text{ A}$.

What are the e.m.f. E and the internal resistance r of the cell?

| | e.m.f. E/V | internal resistance r/Ω |
|---|---------------------|--------------------------------|
| A | 2.0 | 1.0 |
| B | 2.0 | 2.0 |
| C | 3.0 | 1.0 |
| D | 3.0 | 2.0 |

