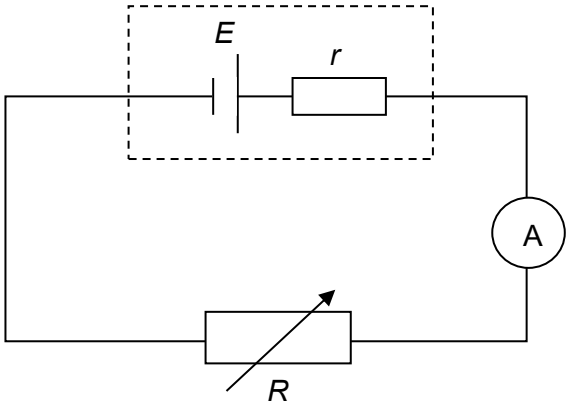
25 A battery of e.m.f. *E* and internal resistance *r* delivers a current *I* through a variable resistance *R*.



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

R / Ω	*I* / A
3.0	1.00
12.0	0.40

What is the value of the internal resistance *r* ?

A 1.3 Ω **B** 3.0 Ω **C** 6.0 Ω **D** 13.0 Ω