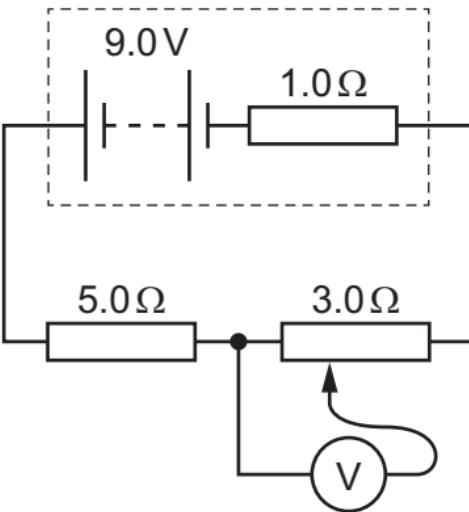


- 38 A battery of electromotive force (e.m.f.) 9.0 V and internal resistance 1.0 Ω is connected to a fixed resistor of resistance 5.0 Ω and a potentiometer of maximum resistance 3.0 Ω , as shown.



The sliding contact of the potentiometer is moved over its full range of movement.

What is the maximum value of the potential difference that is measured by the voltmeter?

A 3.0 V

B 3.4 V

C 4.5 V

D 5.4 V