

- 22 A cell of emf E and internal resistance r is connected to a variable resistor R as shown in Fig. 1. Fig. 2 shows the variation of the ammeter reading I with the voltmeter reading V as R is varied.

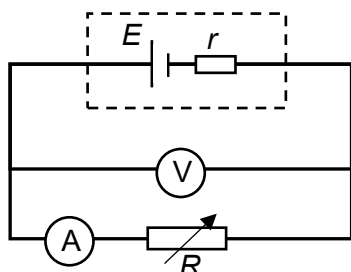


Fig. 1

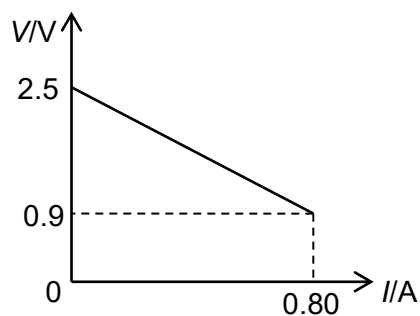


Fig. 2

Assuming that both the voltmeter and ammeter are ideal, what is the internal resistance r of the cell?

- A** $2.0\ \Omega$ **B** $1.7\ \Omega$ **C** $1.3\ \Omega$ **D** $1.1\ \Omega$

