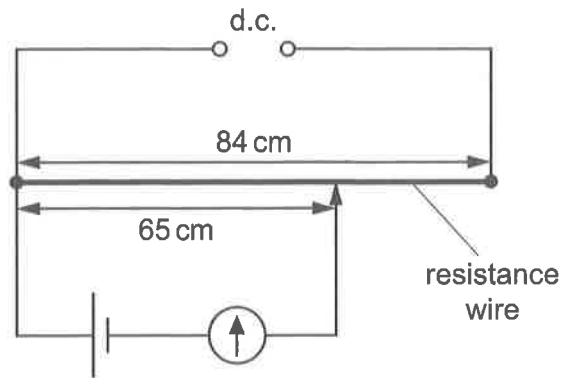22 A resistance wire is taped to a length of wood to form a potentiometer. The length between the contacts is 84 cm.

The potential gradient along this wire is $14.3\,V\,m^{-1}$.

A cell is connected in parallel with 65 cm of the resistance wire. The centre-zero galvanometer shows no deflection.

What is the electromotive force (e.m.f.) of the cell?

A 2.7 V   **B** 9.3 V   **C** 11 V   **D** 12 V