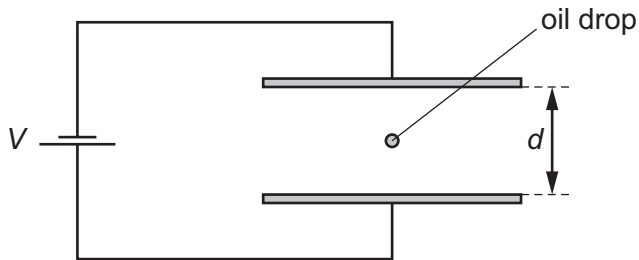


- 31** An oil drop has mass m and charge q . The drop is held stationary in an electric field between two parallel horizontal plates, distance d apart, as shown.



The potential difference between the plates is V and the acceleration of free fall is g .

What is the charge-to-mass ratio $\frac{q}{m}$ of the oil drop?

A $\frac{gd}{V}$

B $\frac{V}{dg}$

C $\frac{gV}{d}$

D $\frac{d}{Vg}$

- 32** The diagram shows a junction in a circuit where three wires A, B and C meet. The currents in A