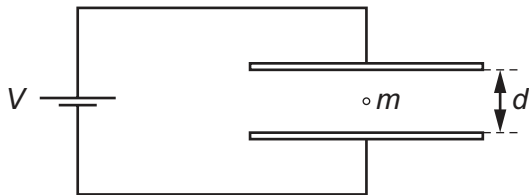


- 30** A charged oil drop of mass m , with n excess electrons, is held stationary in the uniform electric field between two horizontal plates separated by a distance d .



The voltage between the plates is V , the elementary charge is e and the acceleration of free fall is g .

What is the value of n ?

A $\frac{eV}{mgd}$

B $\frac{mgd}{eV}$

C $\frac{meV}{gd}$

D $\frac{gd}{meV}$

- 31** When the current in a wire is 5.0 A , the average drift speed of the conduction electrons in the wire