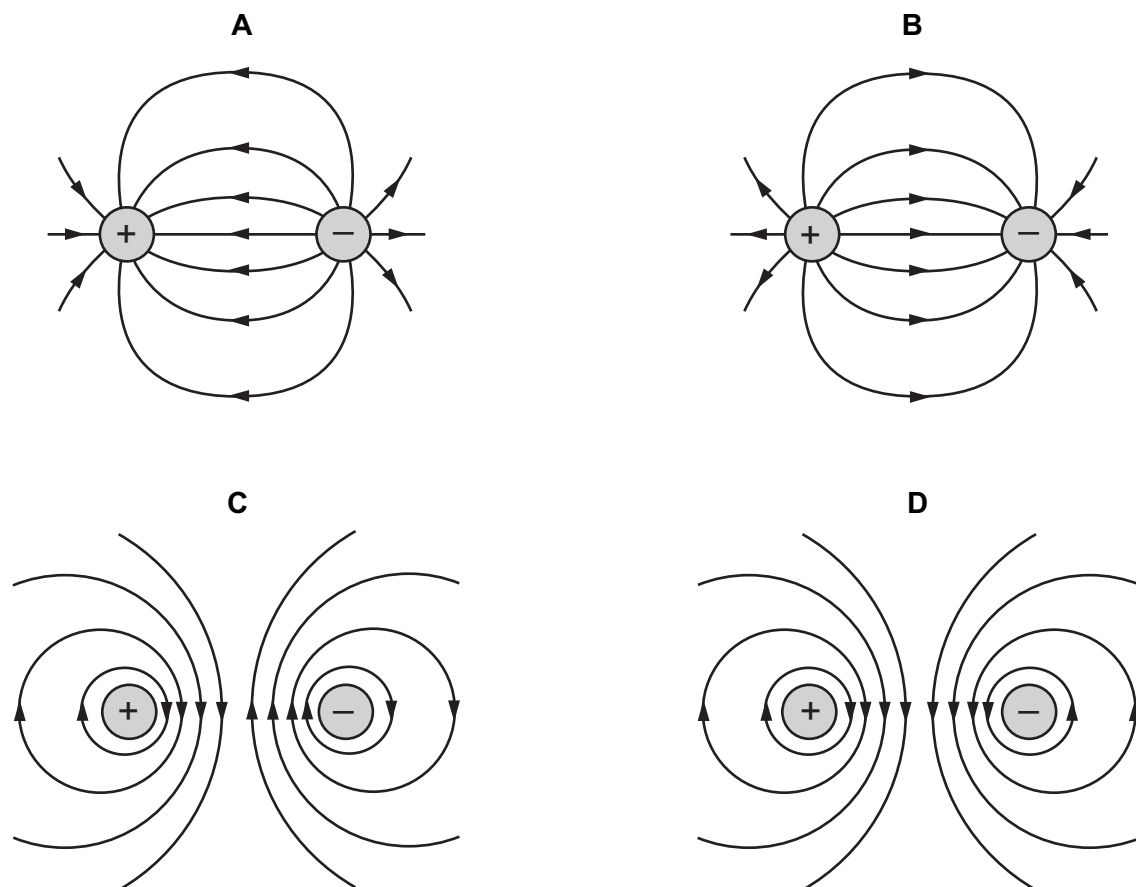
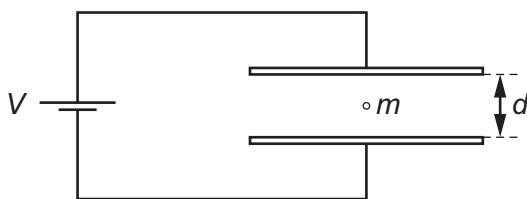


- 29 A positive charge and a negative charge of equal magnitude are placed a short distance apart.

Which diagram best represents the associated electric field?



- 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  $\frac{gd}{meV}$