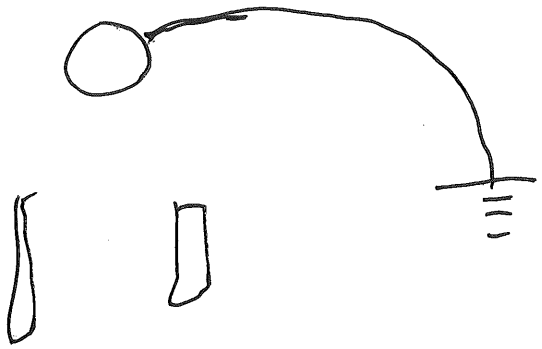
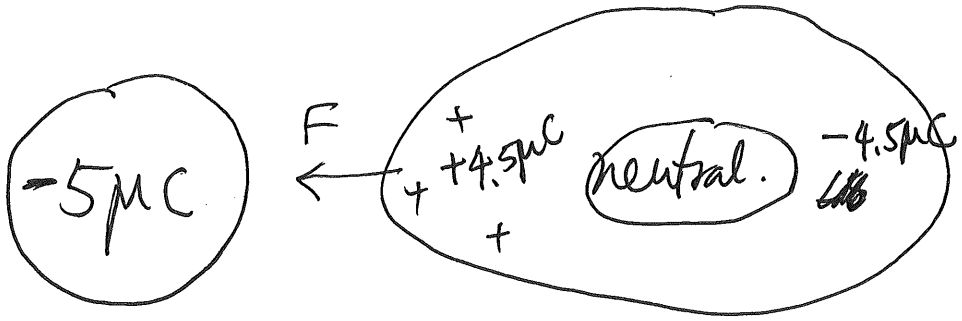
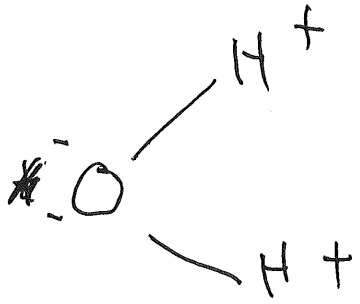
$\varepsilon_0 = 8.854 \times 10^{-12}\ C^2/(m^2 N)$

Outlet



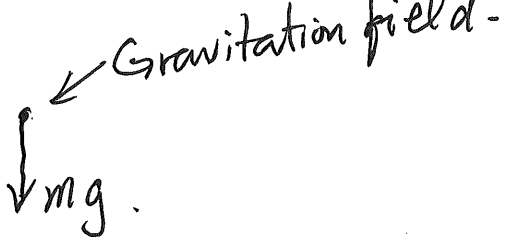




All of us are living in the Earth's gravitation field.

↓

Weight.



Earth

Gravitational field (vector) = $\frac{\text{Weight}}{\text{mass of object}}$ ↓

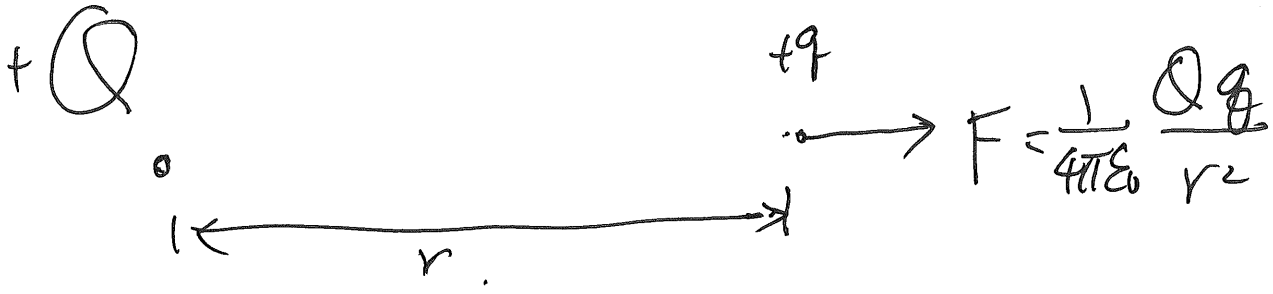
$= g$ ↓

m/s^2 ⟵ ⟶ N/kg.

$$F = \frac{GMm}{r^2}.$$

Gravitational field of $M = \frac{F}{m}$

$$= \frac{GM}{r^2} \text{ (towards } M\text{)}.$$



Electric field $= \frac{F}{q} = \frac{1}{4\pi\varepsilon_0}\frac{Q}{r^2}$.

Unit: N/C.