

Electric Field

$$\vec{g} = \lim_{m \rightarrow 0} \frac{\vec{F}g}{m} \text{ m/s}^2$$

\vec{E} = electric field, a measure of how a charge(s) influences the region of space around it; the field lines tell us the direction that a positive test charge will move

$$\text{Units} = \frac{N}{C}$$

Point charge:

$$\vec{E} = \frac{kq}{r^2}$$

$$E = \frac{F}{q}$$

$$F = qE = eE$$

Goes in direction that a positive will go to

Uniform \vec{E} field:

- All lines are parallel
- $|\vec{E}|$ is same everywhere