

$$F = \frac{1}{4\pi\epsilon_0} \frac{Qq}{r^2}$$

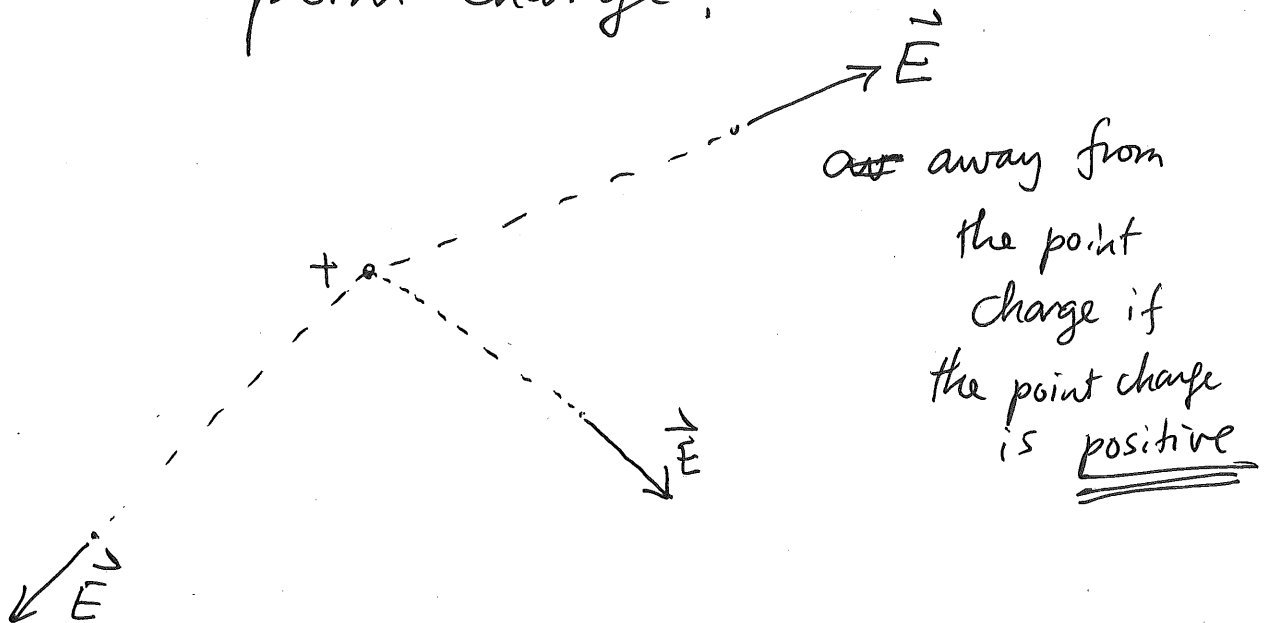
↙ N

$$E = \frac{1}{4\pi\epsilon_0} \frac{Q}{r^2}$$

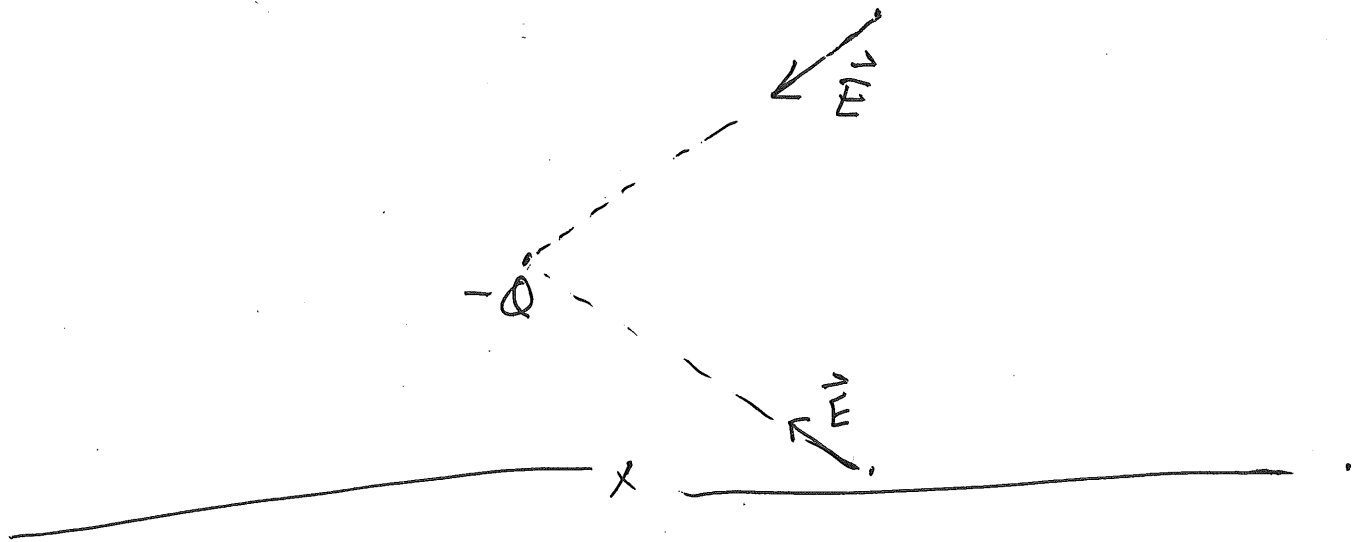
↙ N/C

← This is for source
charge only

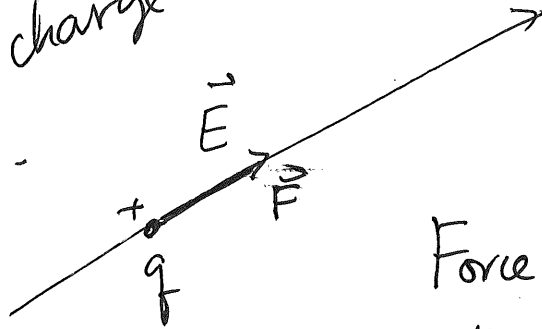
Electric field due to a
point charge.



$\vec{E}$ points towards negative point charge.

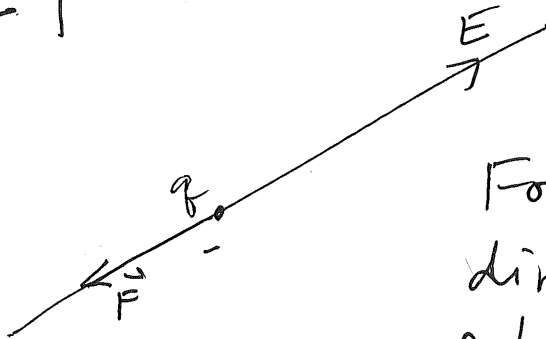


For external charge only.



Force is ~~the~~ in the same direction as $\vec{E}$ if the external charge is positive.

$$|\vec{F}| = |q| |\vec{E}|$$



Force is in the opposite direction as $\vec{E}$ if the external charge is negative.

