

# Electric Field Summary

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# Summary of the new theory that introduces electric field

- ▶ Aspect 1: Charge creates electric field.
  - ▶ A charged particle creates electric field.

$$E = k \frac{|Q|}{r^2}$$

- ▶ A charged plate creates electric field.

$$E = \frac{|\sigma|}{2\epsilon_0}$$

- ▶ For multiple objects, use superposition.
- ▶ Aspect 2: Electric field exerts force on charge.

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