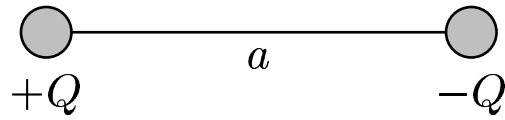


Two point charges are located a distance of a apart and lie on the x -axis.



Determine the electric field vector \vec{E} due to $-Q$ at $+Q$.

- A) $\|\vec{E}\| = -k \frac{Q}{a^2}$ direction : \leftarrow
- B) $\|\vec{E}\| = +k \frac{Q}{a^2}$ direction : \leftarrow
- C) $\|\vec{E}\| = -k \frac{Q}{a^2}$ direction : \rightarrow
- D) $\|\vec{E}\| = +k \frac{Q}{a^2}$ direction : \rightarrow

The magnitude of a vector $\|\vec{E}\|$ is always positive. Since the charges are of opposite sign $\|\vec{E}\| = +k \frac{Q}{a^2}$ direction : \leftarrow

Answer **B**.