

Solutions

Each answer shows the steps, then the **result**.

2.1

- $E = \frac{F}{q} = \frac{0.10}{2.0 \times 10^{-6}} = 5.0 \times 10^4 \text{ N C}^{-1}$

2.2

- radially outward, away from the charge

2.3

- $E = k \frac{q}{r^2} = 8.99 \times 10^9 \times \frac{4.0 \times 10^{-6}}{(0.20)^2} = 9.0 \times 10^5 \text{ N C}^{-1}$

3.1 B

3.2 B

3.3

(a)

- $E = 8.99 \times 10^9 \times \frac{6.0 \times 10^{-6}}{(0.30)^2} = 6.0 \times 10^5 \text{ N C}^{-1}$

(b)

- away from the charge (radially outward)