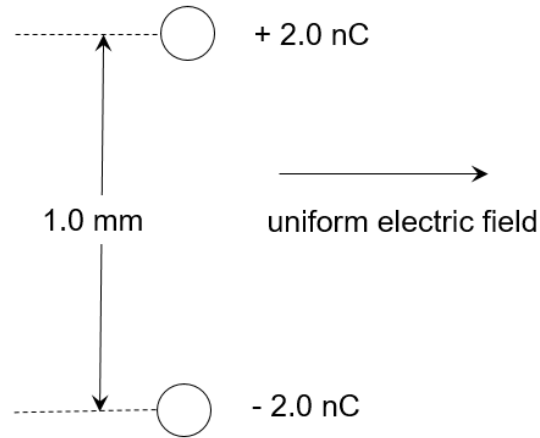


- 21** Two charges are fixed at a distance of 1.0 mm apart as shown below.

A uniform electric field with field strength  $4.0 \text{ N C}^{-1}$  is applied in the direction from left to right.



Which statement describes the net force and torque experienced by the pair of charges?

- A** No net force and no torque.
- B** No net force and the torque is  $8.0 \times 10^{-12} \text{ N m}$  in the clockwise direction.
- C** A net force of  $3.6 \times 10^{-14} \text{ N}$  acts and the torque is  $4.0 \times 10^{-12} \text{ N m}$  in the clockwise direction.
- D** A net force of  $3.6 \times 10^{-14} \text{ N}$  acts and the torque is  $8.0 \times 10^{-12} \text{ N m}$  in the clockwise direction.