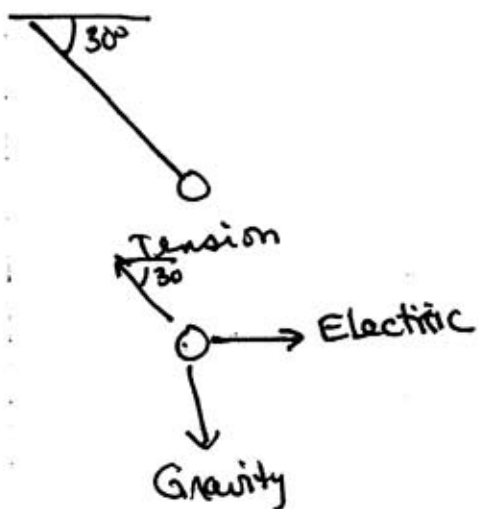


②



$$y: T \sin 30^\circ = mg = (0.035)(9.8)$$

$$T = .686 \text{ N} \quad \text{tension (A)}$$

$$x: T \cos 30^\circ = \frac{kq^2}{r^2} = \frac{9 \times 10^9}{(0.01)^2} q$$

$$q = \sqrt{\frac{(.686) \cos 30^\circ (0.01)^2}{9 \times 10^9}} = 8 \times 10^{-8} \text{ C} \quad \text{-charge (B)}$$

③

