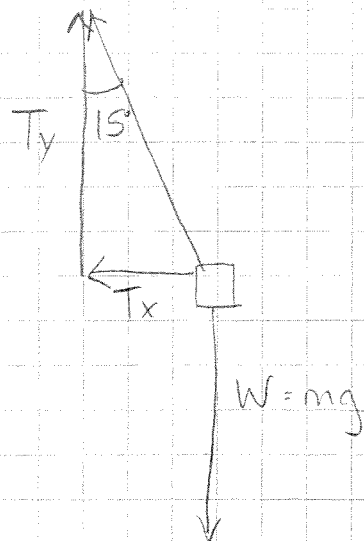


P #50

Ch 15 - pg 494

$$E = 1.00 \times 10^3 \text{ N/C}$$

$$m = 2.00 \text{ g} = .002 \text{ kg}$$



$$W = m \cdot g$$

$$= (.002 \text{ kg}) \cdot (9.8 \text{ m/s}^2)$$

$$W = .0196 \text{ N}$$

$$T_y = W = .0196 \text{ N}$$

$$\tan \theta = \frac{T_x}{T_y}$$

$$\tan 15^\circ = \frac{T_x}{.0196 \text{ N}}$$

$$T_x = .00525 \text{ N}$$

$$T_x = F_e = .00525 \text{ N}$$

$$E = \frac{F_e}{q_0}$$

$$(1.00 \times 10^3 \text{ N/C}) = \frac{(.00525 \text{ N})}{q}$$

$$q_0 = 5.25 \times 10^{-6} \text{ C}$$