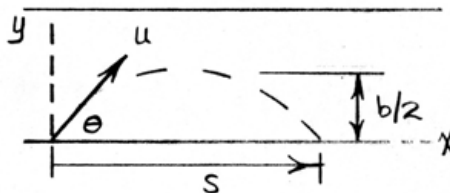


2/75

$$a_y = -\frac{eE}{m}, \text{ constant}$$

$$a_x = 0$$



$$v_y^2 - v_{y_0}^2 = 2a_y y : \text{ At top, } 0 - (u \sin \theta)^2 = 2 \left(-\frac{eE}{m} \right) \frac{b}{2}$$

$$E = \frac{mu^2 \sin^2 \theta}{eb}$$

$$v_y = v_{y_0} + a_y t : \text{ At top, } 0 = u \sin \theta - \frac{eE}{m} t$$

$$t = \frac{mu \sin \theta}{eE}$$

$$x = v_{x_0} t : s = (u \cos \theta)(2t) = u \cos \theta \left(\frac{2mu \sin \theta}{eE} \right)$$

$$= u \cos \theta \left(\frac{2mu \sin \theta}{e \frac{mu^2 \sin^2 \theta}{eb}} \right) = \underline{2b \cot \theta}$$