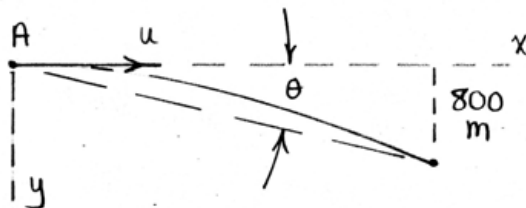


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$$u = \frac{1000}{3.6} = 278 \frac{\text{m}}{\text{s}}$$



$$y\text{-dir.} : y = v_{y0}t + \frac{1}{2}gt^2$$

$$800 = 0 + \frac{1}{2}(9.81)t^2, t = 12.77 \text{ s}$$

$$x\text{-dir.} : x = v_{x0}t + \frac{1}{2}a_xt^2$$

$$= 278(12.77) + \frac{1}{2}\left(\frac{9.81}{2}\right)(12.77)^2$$

$$= 3950 \text{ m}$$

$$\theta = \tan^{-1} \frac{800}{3950} = \underline{11.46^\circ}$$