

a) $t = .86 \text{ sec}$
 $v_x = 24 \text{ m/s}$

$$d_x = d_0 + v_{x0} \cdot t + \frac{1}{2} a t^2$$
$$= (24 \text{ m/s})(.86 \text{ sec})$$

$$d_x = 20.6 \text{ m}$$

b) $t = .86 \text{ sec}$

$$d_y = d_0 + v_{y0} t + \frac{1}{2} a t^2$$
$$= \frac{1}{2} (-9.8 \text{ m/s}^2)(.86 \text{ sec})^2$$

$$d_y = -3.6 \text{ m}$$