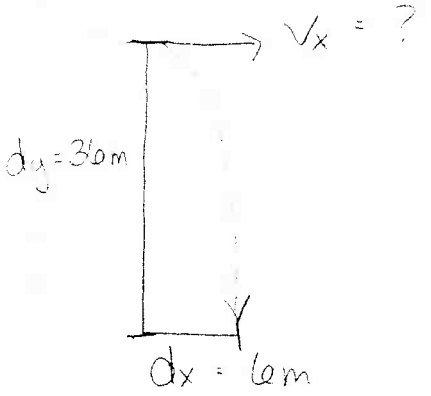

Find t:

$d_y = 36.0\ m$
$a = 9.8\ m/s^2$
$t = ?$

$$d_y = \frac{1}{2} \cdot a \cdot t^2$$

$$36.0\ m = \frac{1}{2}(9.8\ m/s^2) \cdot t^2$$

$$t = 2.71\ sec$$

Find V_x:

$d_x = 6.0\ m$
$t = 2.71\ sec$
$V_x = ?$

$$d_x = V_x \cdot t$$

$$(6.0\ m) = V_x \cdot (2.71\ sec)$$

$$\boxed{V_x = 2.21\ m/s}$$