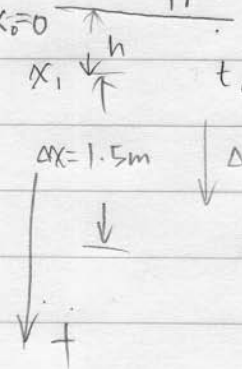
5. suppose the Joker dropped it from rest at $t=0$ and passed the window between t_0 and $t_0+0.2s$



so use $x = x_0 + v_0 t + \frac{1}{2} g t^2$

$x_0 = 0$, $v_0 = 0$

$$x = +\frac{1}{2} g t^2$$

then at $t = t_0$ $\quad x_1 = \frac{1}{2} g t_0^2$

at $t = t_0 + \Delta t$ $\quad x_1 + \Delta x = \frac{1}{2} g (t_0 + \Delta t)^2$

then $x_1 - (x_1 + \Delta x) = \frac{1}{2} g t_0^2 - \frac{1}{2} g (t_0 + \Delta t)^2$

$$\Delta x = \frac{1}{2} g (2t_0 + \Delta t) \Delta t \quad *$$

and from $x_1 = \frac{1}{2} g t_0^2$, we can get $t_0 = \sqrt{\frac{2x_1}{g}}$

from *, $\Delta x = \frac{1}{2} g \left(\sqrt{\frac{2x_1}{g}} \times 2 + \Delta t \right) \Delta t$ $\quad g = 9.8 m/s^2$

here $x_1 = h$ is the height we want, solve the equation

$$h = x_1 \doteq 2.17 m$$