211_ How to determine the acceleration rate using a paper timer:
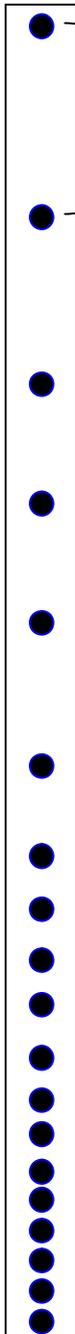
1) Count the number of dots and divide by 60 to determine the amount of seconds
2) Determine the distance between the last two dots.
3) V_o would be 0m/s because you are falling from rest.
4) V_f would be distance of the last two dots (in meters) ÷ 0.0167 (1 dot is $1/60^{th}$ of a second)
5) t = total number of dots ÷ 60
6) Use the equation $a = (V_f - V_o) ÷ t$ for acceleration
7) Use the equation $D = ½ a t^2$ for determining the distance

Determine the acceleration rate?
And the distance traveled?

10mm = 1cm

$cm = \dfrac{10^{-2} m}{cm}$

4.00cm =   (3sig figs)

Distance 1 dot = .0167seconds (3 sig figs)

$= a$

$D = ½ a t^2$

$D =$

$D =$

Worksheet
How to determine the acceleration rate using a paper timer:

8) Count the number of dots and divide by 60 to determine the amount of seconds
9) Determine the distance between the last two dots.
10) V_o would be 0m/s because you are falling from rest.
11) V_f would be distance of the last two dots (in meters) ÷ 0.0167 (1 dot is $1/60^{th}$ of a second)
12) t = total number of dots ÷ 60
13) Use the equation **a = (V$_f$ – V$_o$) ÷ t** for acceleration
14) Use the equation **D = ½ a t²** for determining the distance

Determine the acceleration rate?
And the distance traveled?
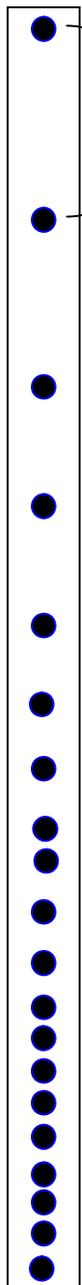
10mm = 1cm
cm = $\dfrac{10^{-2} \text{ m}}{\text{cm}}$

3.80cm = _____m (3sig figs)

Distance 1 dot = .0167seconds   (3 sig figs)

$$= a$$

$$D = \tfrac{1}{2} \, a \, t^2$$

$$D =$$

$$D = \text{_____} \, m$$