1- $t_s = \frac{V_0}{g}$

$1 = \frac{V_0}{10}$

$1 = V_0$

2s = tarda

$2 = 2t_s$

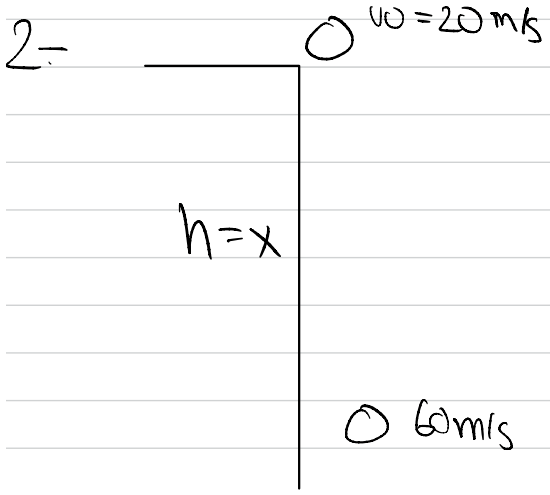
$1 = t_s$

$A\ max = \frac{10^2}{20}$

$= \frac{10 \cdot 10}{20}$

$= 5m$

2-



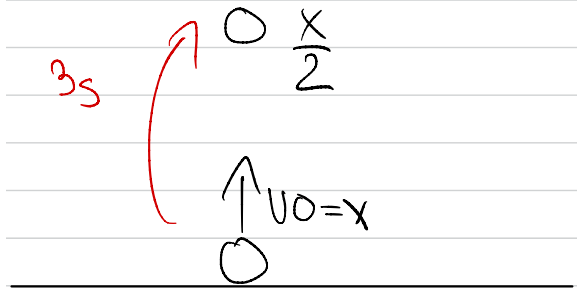
$Vf^2 = V_0^2 + 2 \cdot 10 \cdot h$

$60^2 = 20^2 + 20h$

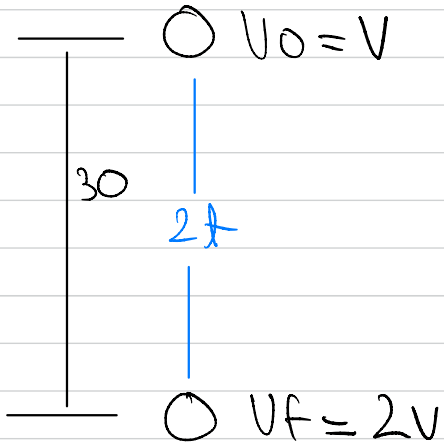
$3600 = 400 + 20h$

$160m = h$

3-



4.-



$V_f = V_o + gt$

$2v = v + 2g$

$v = 2g$

$10 = 2g$

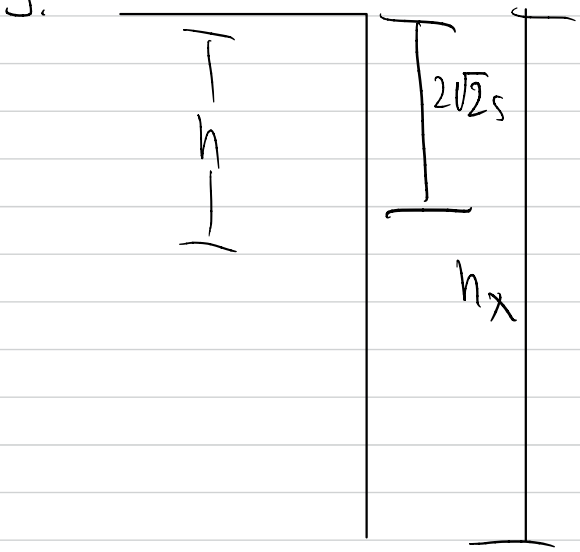
$5\ \frac{m}{s^2} = g$

$h = \frac{V_o + V_f}{2} \cdot t$

$30 = \frac{3v}{2} \cdot 2$

$10 = v$

5.-



$h = 0 + \frac{1}{2} \cdot 10 (2\sqrt{2})^2$

$h = \frac{10 (2\sqrt{2})^2}{2}$

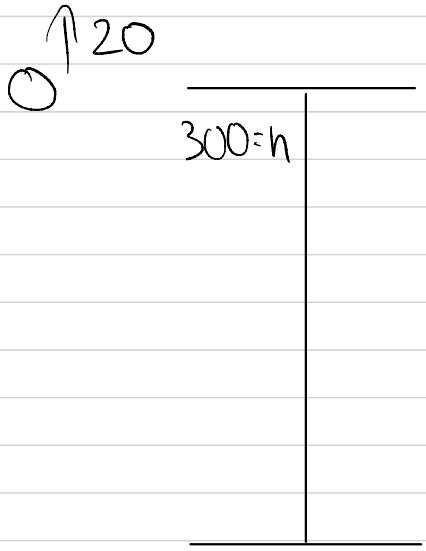
$2h = 10(4 \cdot 2)$

$2h = 80$

$h = 40$

h_x = altura edificio

6-



$Vf^2 = V_0^2 + 2a(\Delta s)$

$Vf^2 = 400 + 6000$

$Vf = \sqrt{6400}$

$Vf = 80 \frac{m}{s}$

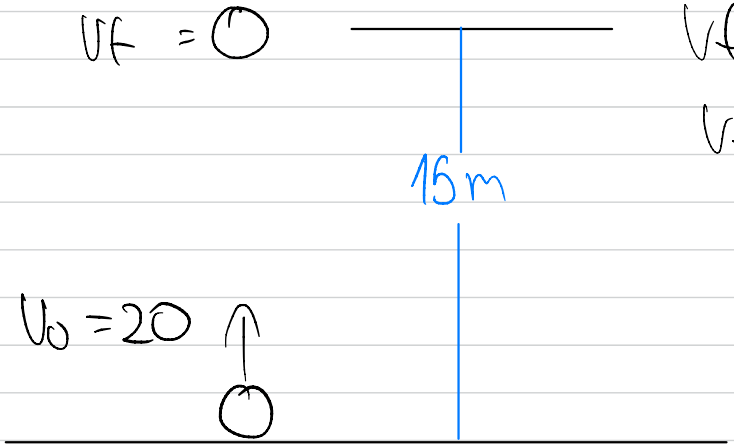
$Vf = V_0 + gt$

$80 = 20 + 10t$

$60 = 10t$

$6_s = t$

7



$Vf^2 = V_0^2 - 2g \cdot h$

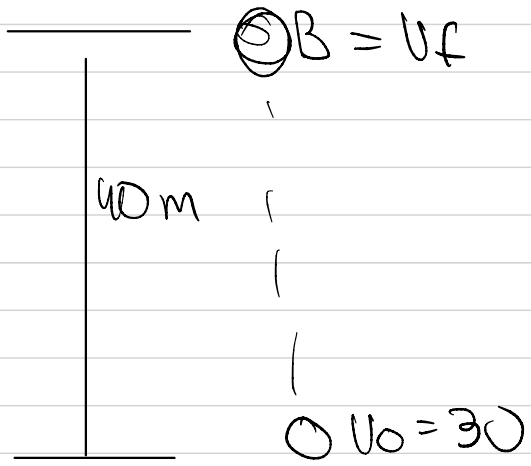
$Vf = 2020 - 20 \cdot 15$

$= 400 - 300$

$= 100$

$Vf = 10 \frac{m}{s}$

8



$$Vf^2 = Vo^2 - 2g \cdot h$$

$$Vf^2 = 30 \cdot 30 - 2 \cdot 10 \cdot 40$$

$$= 900 - 800$$

$$Vf^2 = 100$$

$$Vf = 10 \frac{m}{s}$$