1. $M_b = 20\ kg$

$F = 100N$

$s = 2M$

$v_t = 4{,}0\ M/s$

M_t?

$v_t^2 = v_0^2 + 2as$

$4^2 = 2 \cdot a \cdot 2$

$4 = a$

$a = 4\ m/s^2$

$F = \Sigma M \cdot a$

$100N = (M_b + M_t) \cdot a$

$100N = (20 + M_t) \cdot 4$

$25 = 20 + M_t$

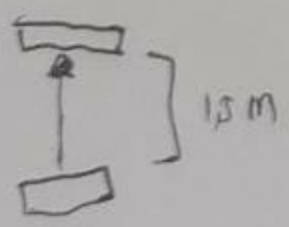
$5\ kg = M_t$

2. $h_1 = 75\ cm = 0{,}75m$

$h_2 = 2{,}25\ m$

$\Delta h = 1{,}5\ m$

$M_b = 2\ kg$



Asumsi $g = 10 M/s$

$W = F.s$

$W = w.s$

$W = m.g.s$

$= 2 \cdot 10 \cdot 1{,}5$

$W = 30\ J$

3. $m = 70kg$

$F = 40N$

$V_0 = 0{,}60\ m/s$

$V_{saat}\ s = 0{,}5m = 0{,}20\ m/s$

$\Delta E_{th} = ?$

$W = F.s$

$W = 40 \cdot 0{,}5$

$= 20\ J$

$W = \Delta E_{mec} + \Delta E_{th}$

$20J = \frac{1}{2} m (v_t^2 - v_0^2) + \Delta E_{th}$

$20 = \frac{1}{2} 70 (36.10^{-2} - 4.10^{-2}) + \Delta E_{th}$

$20 = 35 \cdot 32.10^{-2} + \Delta E_{th}$

$\Delta E_{th} = 20 - 11{,}2$

$\Delta E_{th} = 8{,}8\ J$