Latsal Tutor FMIK 2 10/09/2021

1. $a = 2 m/s^2$
$r = 0,25 m$
$s = 100 m$
Berapakah putaran roda?

Keliling roda $= 2\pi r = 2 . 3,14 . 0,25$
$= 1,57 m$

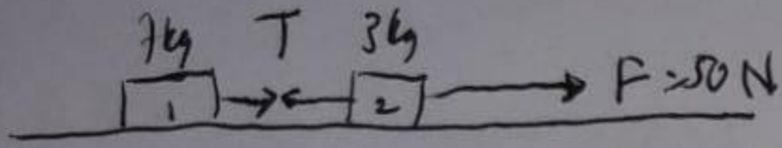
Banyak put. roda $= \frac{100}{1,57} = 63,69$ putaran

2. $V_x = 20 m/s$ ; $h = 8000 m$ ; $g = 10 m/s^2$
a. berapa waktu yang dibutuhkan untuk kotak menyentuh tanah?
b. Berapa jarak horizontal yang ~~dibutuhkan~~ ditempuh?

a. $y = V_{oy} . t - \frac{1}{2} g t^2$
$8000 = 0 . t - \frac{1}{2} . 10 . t^2$
$8000 = 5 t^2$
$1600 = t^2$
$40 s = t$

b. $x = V_{ox} . t$
$x = 20 . 40$
$= 800 m$

3. Tentukan nilai tegangan tali T




$F = M.a$

$50 = (7+3).a$

$50 = 10.a$

$5\ m/s^2 = a$

$T = M_1 . a$

$T = 7,5$

$T = 35\ N$

4. Balok A dan B diam
Berapa besar gaya gesek pada kondisi tsb?

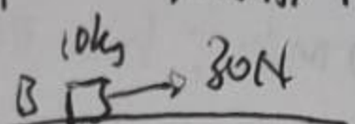

$N_S = 0,4$

$f_s = N_s . N_A$

$f_s = 0,4 . 20 . 10$

$= 80\ N$

(Asumsi $g = 10\ m/s^2$)




$N_S = 0,5$

Asumsi $g = 10\ m/s^2$

$f_s = N_s . N_B$

$f_s = 0,5 . 10 . 10$

$f_s = 50\ N$