No.
Date

Latihan 2

1) $F_1 = 200\ N$
$m = 15\ kg$
$\theta = 37^\circ$
$P_2 = 20N$

* $F_h = F_1 \cos 37^\circ - F_2$
$= 200 \times 4/5 - 20$
$= 160 - 20$
$= 140\ N$

a horizontal $= \frac{F_h}{m} = \frac{140}{15} = 9,33\ m/s^2$

Vertikal $= F_1 \sin 37^\circ$
$= 200 \times 3/5$
$= 120\ N$

$F_v = F_1 \sin 37^\circ - W$
$= 120 - (15.10)$
$= 120 - 150$
$= 30\ N$

$F_1 \sin 37^\circ \angle W$
$120 \quad 150$

Karena $F \sin 37^\circ < W$, maka tidak mempunyai gaya vertikal

2) $\theta = 37^\circ$
$\mu_k = 0,15$
t / bergerak $= 5$ detik
$g = 10\ m/s$

* $a = g \sin \theta - \mu_k g \cos \theta$
$= (10 . 3/5) - (0,15 . 10 . 4/5)$
$= (10 . 0,6) - (0,15 . 10 . 0,8)$
$= 6 - 1,2$
$= 4,8\ m/s^2$

$V = V_0 + at$
$V = at$
$V = 4,8 . 5$
$V = 24\ m/s$

3) a. $m = 5\ kg$
$\theta = 37^\circ$
$F = 71\ N$
$g = 10\ m/s^2$
$\mu_k = 0,4$

* $\Sigma F = ma$
$F - W \cdot \sin 37^\circ - f_k = ma$
$F - w \cdot \sin 37^\circ - \mu_k \cdot w \cos 37^\circ = ma$
$71 - (50 \cdot 3/5) - (0,4 \cdot 50 \cdot 4/5) = 5a$
$71 - 30 - 16 = 5a$
$25 = 5a$
$5a = 25$
$a = 5\ m/s^2$ //

4) $m = 60\ kg$
$F = 800\ N$
$h_t = 2\ m$
$r = L_{papan} = 2,5\ m$
$g = 10\ m/s^2$
$a = 2\ m/s^2$

$\cos\theta = x/r$
$x = \sqrt{r^2 - y^2}$
$\sin\theta = 7/r$

* $W = m \cdot g$
$= 60 \cdot 10$
$= 600\ N$

$N = W \cdot \cos\theta$
$= 600 \cdot 1,5/2,5$
$= 360\ N$

$Fg = F - W \sin\theta - ma$
$= 800 - 600 \cdot 2/2,5 - 60 \cdot 2$
$= 800 - 480 - 120$
$= 200\ N$

$x = \sqrt{h_t^2 - t^2}$
$= \sqrt{(2,5)^2 - (2)^2}$
$= \sqrt{6,25 - 4}$
$= \sqrt{2,25}$
$= 1,5\ m$

$Fg = \mu_k N$
$\mu_k = Fg/N$
$= 200/360$
$\mu_k = 0,5$ //

Sistem Operasi