

1. Dik :  $F = 120 \text{ N}$   
 Sudut elevasi =  $60^\circ$

Dit ? besar gaya dari benda horizontal

Jwb =  $120 \times \cos 60^\circ$   
 $= 120 \times 0,5$   
 $= 60 \text{ N}$

2.  $\Sigma F = m \cdot a$

$w \cdot \sin \alpha = m \cdot a$

$a = \frac{w \cdot \sin \alpha}{m}$

$a = \frac{m \cdot g \cdot \sin 30^\circ}{m}$

$a = \frac{10 \cdot \frac{1}{2}}{1}$

$a = 50 \text{ m/s}^2$

3. Diké  $m_1 = 1 \text{ kg}$

$m_2 = 3 \text{ kg}$

Dit ?

a)  $a$

b)  $T$

Jwb:

$m_2$  &  $m_1$  selinggo katrol akan menuju ke benda  $m_2$

a.) Diliat dari benda  $m_1$  dilihat pada  $m_2$

$\Sigma F = m \cdot a$

$\Sigma F = m \cdot a$

$T - w_1 = m_1 \cdot a$

$w_2 - T = m_2 \cdot a$

$T - m_1 \cdot g = m_1 \cdot a$       $m_2 \cdot g - T = m_2 \cdot a$

$T - 1 \times 10 = 1 \cdot a$       $3 \times 10 = 3 \cdot a$

$T - 10 = a \dots$  (Pers 1)      $30 - T = 3a \dots$  (Pers 2)

eliminasi Pers (1) dan (2)

$T - 10 = a$

$T + 30 = 5a$

~~$20 = 4a$~~

$20 = 4a$

$a = 20 : 4$

$a = 5 \text{ m/s}^2$

b)  $T - 10 = a$

$T - 10 = 5$

$T = 5 + 10$

$T = 15 \text{ N}$

4) Dik =  $m_1 = 2 \text{ kg}$      $m_2 = 3 \text{ kg}$

Dit: a)  $a$

b)  $T$

Jwb:

$T - m_1 \cdot g = m_1 \cdot a$

$T - 2 \cdot 10 = 2 \cdot a$

$T - 20 = 2a$

$T - 20 = 2a \dots (\text{pers 1})$

$m_2 \cdot g - T = m_2 \cdot a$

$3 \cdot 10 - T = 3 \cdot a$

$30 - T = 3a \dots (\text{pers 2})$

eliminasi Pers 1 dan 2

$T - 20 = 2a$

$T + 30 = 3a$

$\frac{10 = 5a}{5 = 15} \dots = 2 = a$

~~$5 = 15$~~