Jawaban

1 Dik: $F = 120\ N$

$a = 60^\circ$

$S = 10\ m$

$W = \Sigma F \cdot S$

$W = Fx \cdot S$

$W = F \cdot \cos(a) \cdot S$

$W = 120 \cdot 0.5 \cdot 10$

$W = 600$ joule

3 dik : $m_1 = 1\ kg$

$m_2 = 3\ kg$

a)

$\Sigma F = m.a$

$T - w_1 = m_1 \cdot a$

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

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

$T - 10 =$

$\Sigma F = m.a$

$w_2 - T = m_2 \cdot a$

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

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

$30 - T = 3a$

eliminasi pers (1) dan (2)

$T - 10 = a$

$-T + 30 = 3a +$

$20 = 4a$

$a = \frac{20}{4}$

$a = 5\ m/s^2$

b) $T - 10 = a$

$T - 10 = 5$

$T = 10 + 5$

$T = 15\ N$

4 Dik = $m_1 = 2\ kg$

$m_2 = 3\ kg$

$F = 10\ N$

a) $\Sigma F = m.a$

$F = (m_1 + m_2)a$

$10 = (2+3)a$

$10 = 5a$

$a = 10 : 5$

$a = 2\ m/s^2$

b) $\Sigma F_1 = m_1.a$

$T = m_1.a$

$T = 2(2)$

$T = 4$ newton

2 Dik $m = 2kg$

$g = 10\ m/s^2$

$\theta = 30^\circ$

$\Sigma F x = m.g$

$m.g \cdot \sin \theta = m.ax$

$ax = g \sin \theta$

$ax = 10 \cdot \sin 30$

$ax = 10 \cdot 1/2$

$ax = 5\ m/s^2$