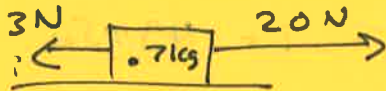


# Key to More Precise Questions



①  $700g = 0.70kg$



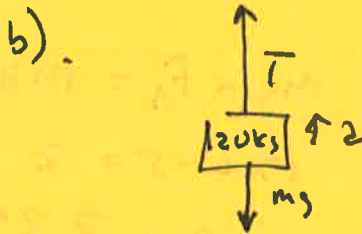
$$F_{net} = ma$$

$$17 = .7a$$

$$a = \underline{24 \text{ m/s}^2}$$

②  $w = mg = 20 \times 9.8 = 196 \text{ N}$

a).  $T = \cancel{1.96 \times 10^2} 2.0 \times 10^2 \text{ N}$



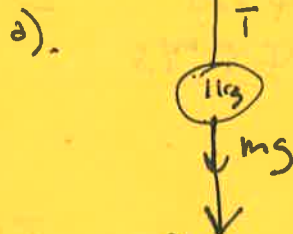
$$T - m_g = ma$$

$$T = ma + m_g$$

$$= (20)(.7) + (20)(9.8)$$

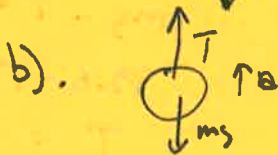
$$= 210 \text{ N}$$

③  $m = 0.5kg$



$$T = m_g = (1)9.8 = 9.8 \text{ N}$$

$4.9 \text{ N}$



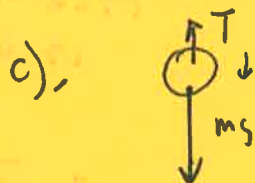
$$T - m_g = ma$$

$$T = m_g + ma$$

$$= (1)(9.8) + (1)(1.2)$$

$$= 11 \text{ N}$$

$5.5 \text{ N}$



$$m_g - T = ma$$

$$m_g - ma = T$$

$$(1)(9.8) - (1)(1.2) = 8.6 \text{ N}$$

$4.3 \text{ N}$

4.



$$m_5 - T = ma \quad 98 - T = 10a$$

$$T - m_5 = ma \quad T - 49 = 5a$$

$$T = 49 + 5a$$

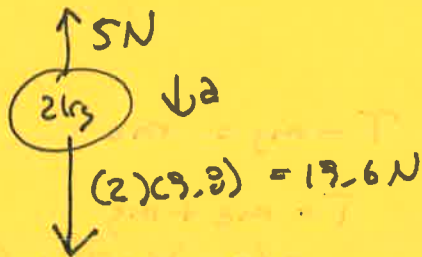
$$98 - 49 - 5a = 10a$$

$$49 = 15a$$

$$a = 3.3 \text{ m/s}^2$$

$$T = 33 \text{ N}$$

5.  $v_i = 0$



$$m_5 - F_A = ma$$

$$19.6 - 5 = 2a$$

$$a = 7.3 \text{ m/s}^2$$

$$v_i = 0 \quad t = 6 \text{ s} \quad a = 7.3 \text{ m/s}^2$$

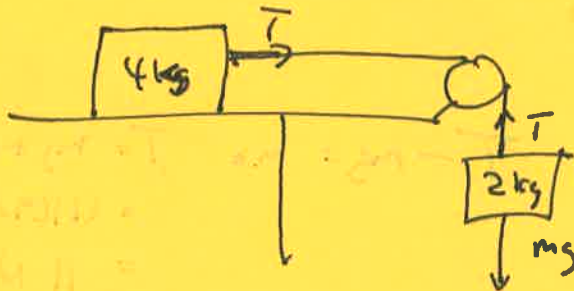
$$a = \frac{v_f - v_i}{t}$$

$$v_f = at + v_i = (7.3)(6) + 0$$

$$= 43.8$$

$$= 44 \text{ m/s}$$

6.



$$m_5 - T = ma$$

$$19.6 - T = 2a$$

$$T = 4a$$

$$19.6 - 4a = 2a$$

$$19.6 = 6a$$

$$a = 3.3 \text{ m/s}^2$$

$$T = 13 \text{ N}$$