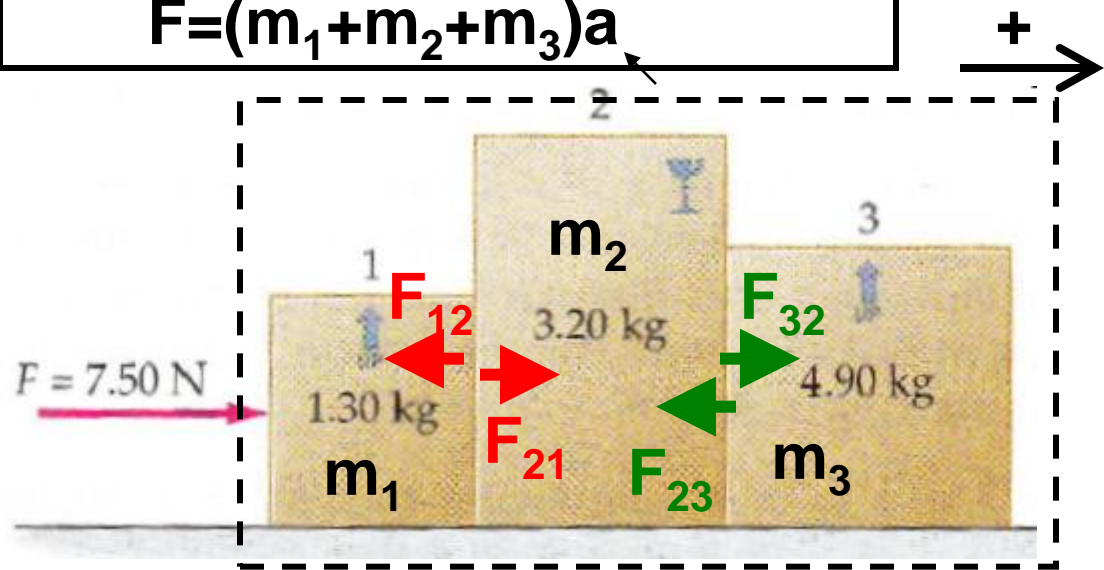


$$a = \frac{7.5}{(1.3 + 3.2 + 4.9) \text{ kg}} \frac{\text{N}}{\text{kg}} = 0.798 \frac{\text{m}}{\text{s}^2}$$

$$a = \frac{F}{(m_1 + m_2 + m_3)}$$

$$F = (m_1 + m_2 + m_3)a$$

Find F_{21} and F_{23}
I first find "a"



$$a = \frac{7.5}{(1.3 + 3.2 + 4.9) \text{ kg}} \frac{\text{N}}{\text{kg}} = 0.798 \frac{\text{m}}{\text{s}^2}$$

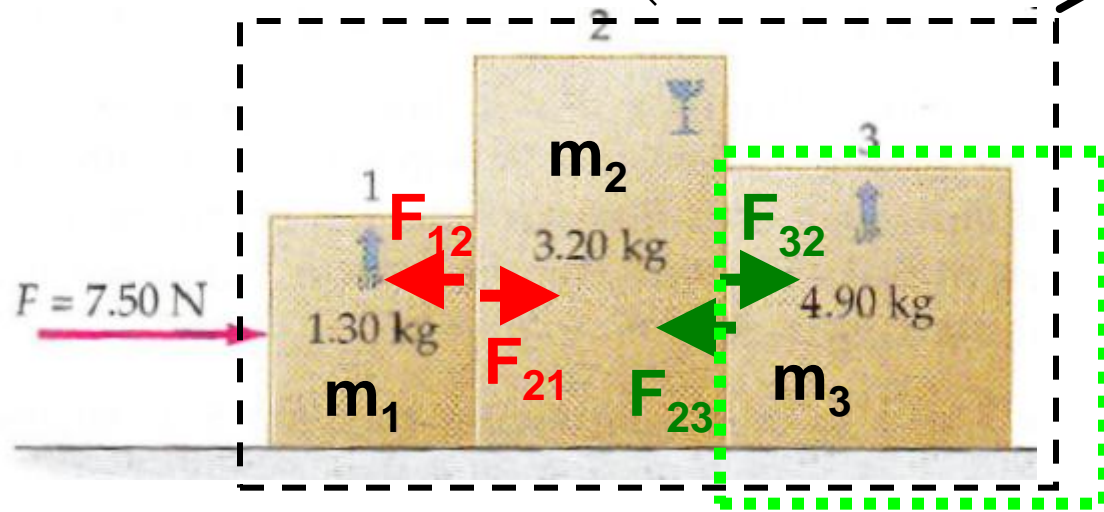
$$a = \frac{F}{(m_1 + m_2 + m_3)}$$

$$F = (m_1 + m_2 + m_3)a$$

+

$$F_{32} = m_3 a$$

$$F_{32} = 4.9(.798) \text{ kg m/s}^2$$



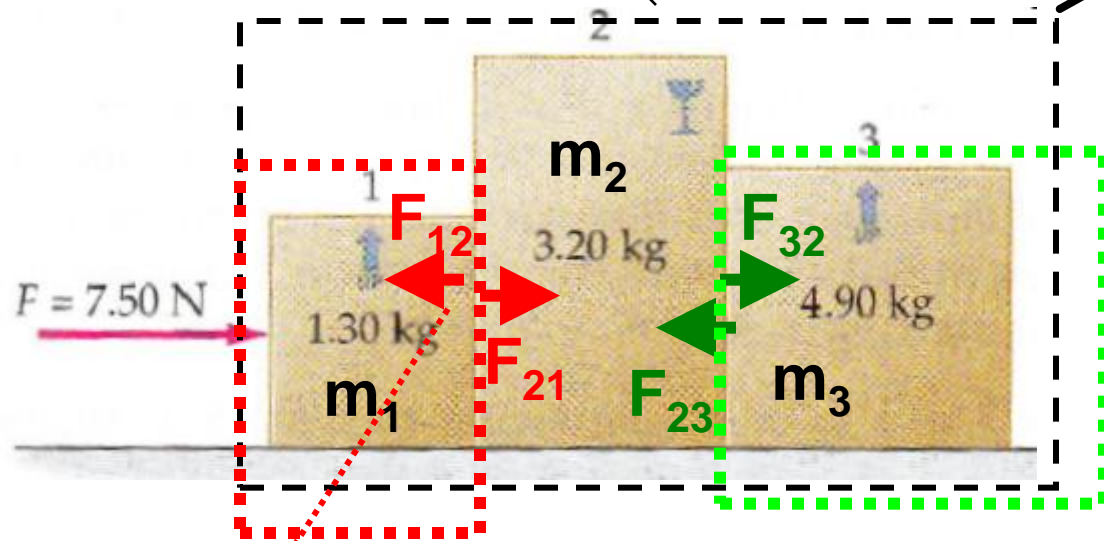
$$a = \frac{7.5 \text{ N}}{(1.3 + 3.2 + 4.9) \text{ kg}} = 0.798 \frac{\text{m}}{\text{s}^2}$$

$$a = \frac{F}{(m_1 + m_2 + m_3)}$$

$$F = (m_1 + m_2 + m_3)a$$

$$F_{32} = m_3 a$$

$$F_{32} = 4.9(.798) \text{ kg m/s}^2$$

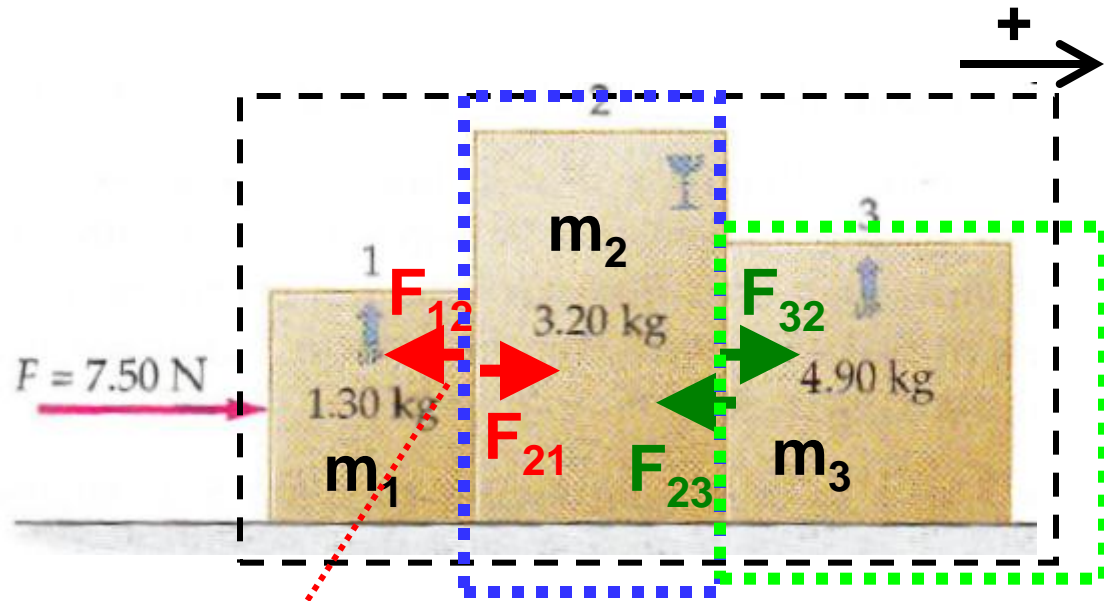


sign - direction included

$$F - F_{12} = m_1 a$$

$$F_{12} = F - m_1 a = 7.5\text{N} - 1.3(.798)\text{kg m/s}^2 = 6.46\text{N}$$

$$\mathbf{a} = \frac{7.5}{(1.3 + 3.2 + 4.9) \text{ kg}} \frac{\text{N}}{\text{kg}} = 0.798 \frac{\text{m}}{\text{s}^2}$$



$$\mathbf{F}_{32} = 3.91 \text{ N}$$

$$\mathbf{F}_{21} - \mathbf{F}_{23} = \mathbf{m}_2 \mathbf{a} \quad \text{check}$$

$$6.46 \text{ N} - 3.91 \text{ N} = 3.2 \text{ kg} \cdot 0.798 \text{ m/s}^2$$

$$2.55 \text{ N} = 2.55 \text{ N}$$

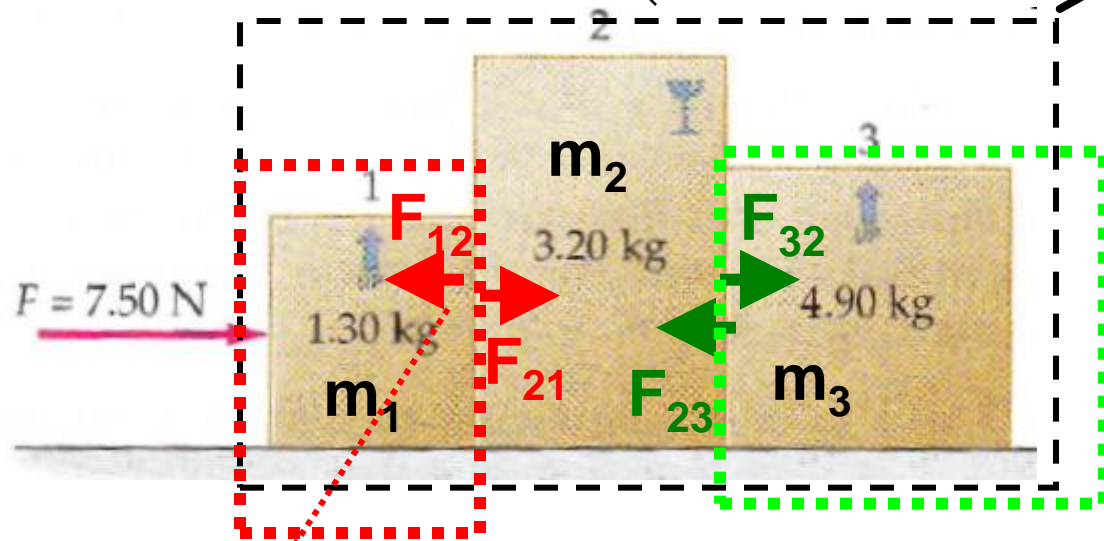
$$a = \frac{7.5 \text{ N}}{(1.3 + 3.2 + 4.9) \text{ kg}} = 0.798 \frac{\text{m}}{\text{s}^2}$$

$$a = \frac{F}{(m_1 + m_2 + m_3)}$$

$$F = (m_1 + m_2 + m_3)a$$

$$F_{32} = m_3 a$$

$$F_{32} = 4.9(.798) \text{ kg m/s}^2$$



sign - direction included

$$F - F_{12} = m_1 a$$

$$F_{12} = F - m_1 a = 7.5\text{N} - 1.3(.798)\text{kg m/s}^2 = 6.46\text{N}$$