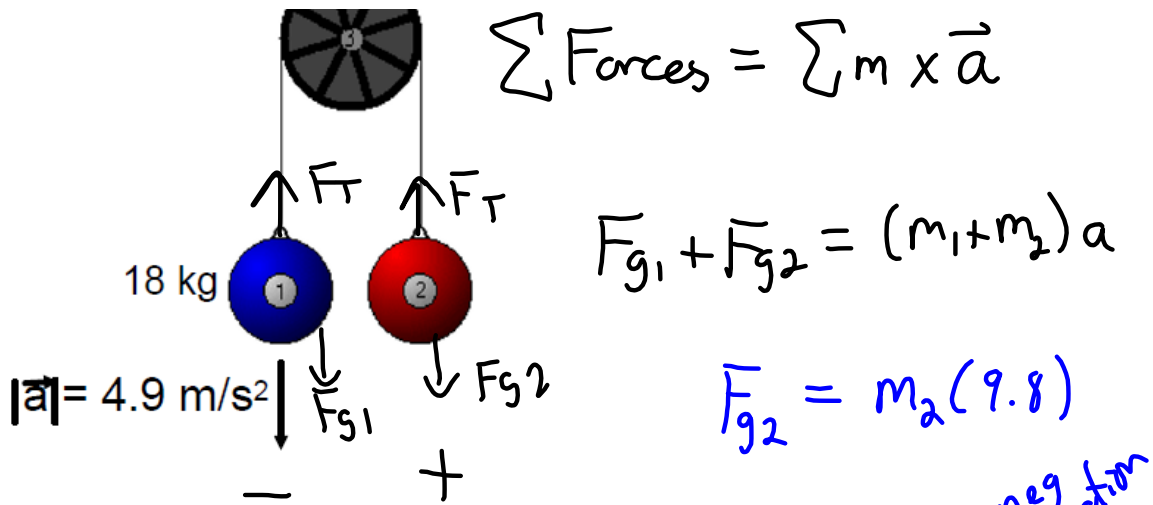


Calculate  $m_2$  and  $F_T$ .



$$\sum \text{Forces} = \sum m \times \vec{a}$$

$$F_{g1} + F_{g2} = (m_1 + m_2) a$$

$$F_{g2} = m_2(9.8)$$

$$-F_{g1} + F_{g2} = (18 + m_2)(-4.9)$$

*neg direction*

$$-177 + 9.81 m_2 = -88.2 - 4.9 m_2$$

$$9.81 m_2 + 4.9 m_2 = -88.2 + 177$$

$$14.71 m_2 = 88.8$$

$$m_2 = \frac{88.8}{14.72}$$

$$m_2 = 6.0 \text{ kg}$$

$$F_T = ? \quad F_{g1} + F_T = m_1 a$$

## Attachments

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forces-and-motion-basics\_all.jar

forces-1d\_all.jar