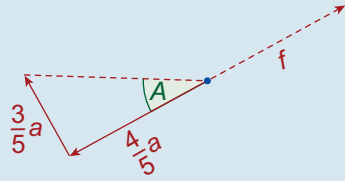


Accelerations

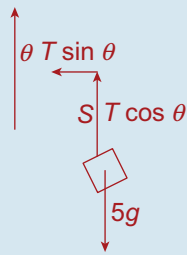


$$1. T - \frac{3}{5}g = 1\left(f - \frac{4}{5}a\right)$$

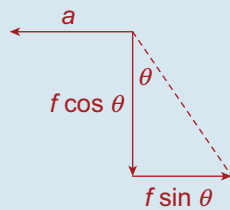
$$2. R - \frac{4}{5}g = 1\left(\frac{3}{5}a\right)$$

The 5kg Mass:

Forces



Accelerations

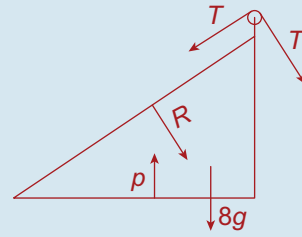


$$3. 5g - T \cos \theta = 5(f \cos \theta)$$

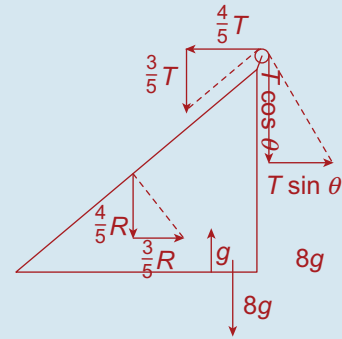
$$4. T \sin \theta = 5(a - f \sin \theta)$$

The Wedge:

Forces



Resolved



Acceleration



$$5. \frac{4}{5}T - \frac{3}{5}R - T \sin \theta = 8a$$