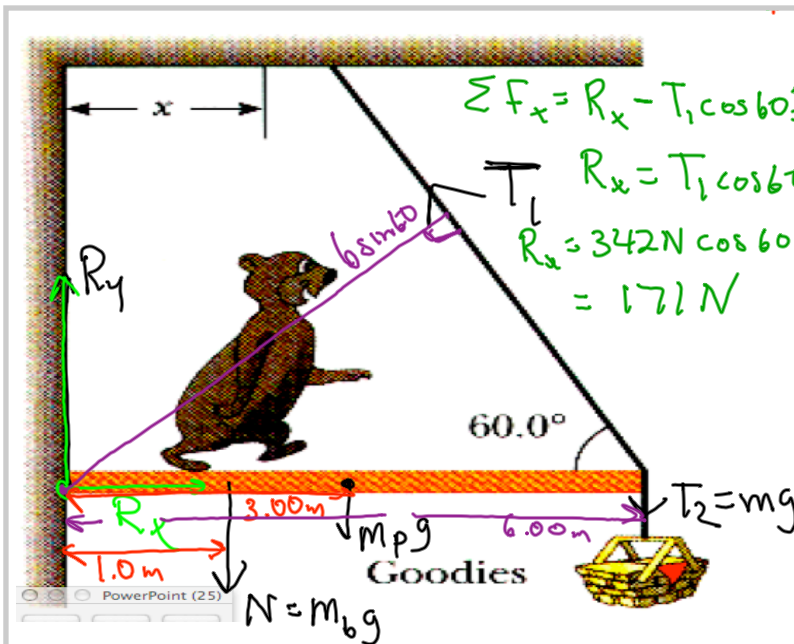


## **Reminders 11-03-10:**

- Next Exam will require use of conservation of energy and free-body analysis. Exam 3 Chapters 7-9 Wednesday November 10.**
- No Quiz Today, Turn in Torque Conceptual questions by Monday instead.**

## **Objectives:**

- One More Equilibrium Example**
- Discussion of Rotational Dynamics**
- Temperature**



$$\Sigma \tau = -(m_b g)(1) - (m_p g)(3) - (m g)(6) + T 6 \sin 60^\circ$$

$$T = \frac{(m_b g)(1) + (m_p g)(3) + (m g)6}{6 \sin 60^\circ}$$

$$= \frac{(700)(1) + (200)(3) + (80)(6)}{6 \sin 60^\circ}$$

$$= \underline{342 \text{ N}}$$

$$\Sigma F_y = R_y + T \sin 60^\circ - 700 \text{ N} - 200 \text{ N} - 80 \text{ N} = 0$$

$$R_y = 980 \text{ N} - T \sin 60^\circ$$

$$= 980 \text{ N} - 342 \text{ N} \sin 60^\circ$$

$$= 684 \text{ N}$$