

## 9.5: Parallel Axis Theorem

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**Definition:** (Parallel Axis Theorem) The **parallel axis theorem** states that if we have a moment of inertia about center of mass of a body,  $I_{cm}$ , then the moment of inertia about any other axis parallel to the first,  $I_P$  is given by

$$I_P = I_{cm} + md^2$$

where  $m$  is the mass of the body and  $d$  is the distance between the two.