

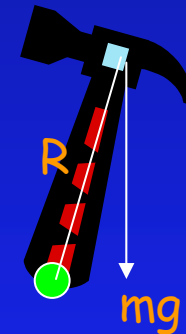
The Hammer!

You want to balance a hammer on the tip of your finger, which way is easier

38% A) Head up

58% B) Head down

4% C) Same



$$\tau = I \alpha$$

$$m g R \sin(\theta)$$

Torque increases with R

$$g \sin(\theta)$$

Key idea: higher angular acceleration means more difficult to balance.

Inertia increases as R^2

Angular acceleration decreases with R! So large R is easier

to balance

What is angular acceleration?