

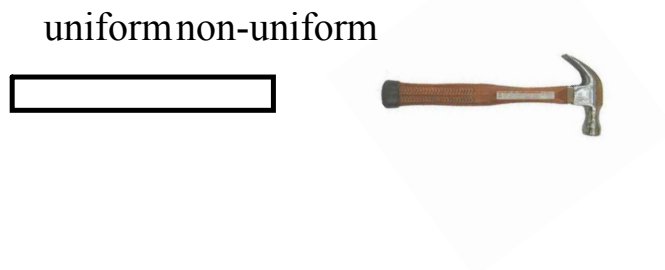
Static Equilibrium and Torque

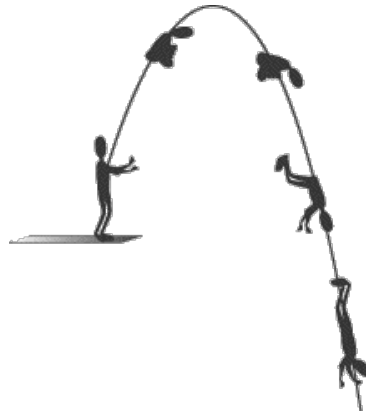
Center of Mass:

An imaginary point where you assume all the mass is located.

For uniform objects (spheres, squares, etc) the center of mass is the center of the object. For non uniform masses, the center of mass is not near the center.

Think of it as a balancing point.





http://www.youtube.com/watch?v=76-OYwFhYr0&safety_mode=true&persist_safety_mode=1&safe=active



http://www.youtube.com/watch?v=hqDhW8HkOQ8&safety_mode=true&persist_safety_mode=1&safe=active

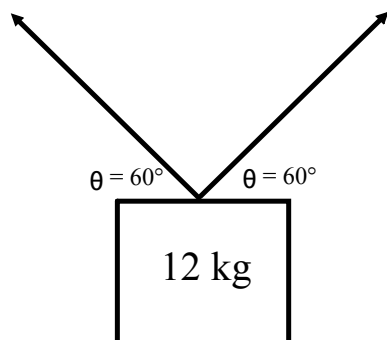


http://www.youtube.com/watch?v=GS-QT17miOc&safety_mode=true&persist_safety_n



Hanging Picture Problems

Ex 1: Calculate the tension in each string below



$$T = 68.4 \text{ N}$$

p. 237 # 1-3

p. 266 # 1

p. 267 # 18 - 20, 25

**18. Ans = 196 N*

19. Ans = 170 N