

Mr. Jenkins
Physics 1

Assignment Sheet
Torque (Static Equilibrium Part 2)

Objectives

You will be able to:

- A. find the torque (magnitude and direction) due to a given force about a given pivot point.
determine the center of mass of simple objects.
- B. apply the definitions of static equilibrium, level arm, torque, and center of gravity to solve problems.
explain the relationship between balance, center of mass, and base of support.

Reading

- A. Torque and Balance, p. 201–205
- B. The conditions for static equilibrium, p. 211–215, 217

Laboratory

Static Equilibrium Take 2
Torque and the mass of a meter stick
Torque and tools (exercise)
Mobiles

Focus Questions

1. A person is unable to loosen the nut that holds a lawn mower blade in place because that person cannot apply enough force to the wrench. How could this person loosen the nut (without resorting to asking someone stronger)?
2. Why do you tend to lean backwards when carrying a heavy load?