

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.
- B. apply the definitions of static equilibrium, level arm, torque, and center of gravity to solve problems.
- C. explain the relationship between balance, center of mass, and base of support.
determine the center of mass of simple objects.

Reading

- A. 11-1 Torque, p. 333–336
- B. 11-3 Zero Torque and Static Equilibrium, p. 340–346
- C. 11-4 Center of Mass and Balance, p. 347–349

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?