

## Chapter 12 Unit Study Guide

### Multiple Choice

Identify the letter of the choice that best completes the statement or answers the question.

- \_\_\_\_\_ 1. Which of these is an example of work being done on an object?
  - a. holding a heavy piece of wood at a construction site
  - b. trying to push a car that doesn't move out of deep snow
  - c. pushing a child on a swing
  - d. holding a door shut on a windy day so it doesn't blow open
- \_\_\_\_\_ 2. In order to do work on an object, the force you exert must be
  - a. the maximum amount of force you are able to exert.
  - b. in the same direction as the object's motion.
  - c. in a direction opposite to Earth's gravitational force.
  - d. quick and deliberate.
- \_\_\_\_\_ 3. Work is measured in
  - a. meters.
  - b. pounds.
  - c. joules.
  - d. newtons.
- \_\_\_\_\_ 4. What do machines do?
  - a. change the amount of force you exert or the distance over which you exert the force
  - b. increase the amount of work that is done
  - c. decrease the amount of work that is done
  - d. eliminate friction
- \_\_\_\_\_ 5. A term that means the same thing as output force is
  - a. input force.
  - b. resistance force.
  - c. effort force.
  - d. multiplying force.
- \_\_\_\_\_ 6. The mechanical advantage of a machine that changes only the direction of force is
  - a. 1.
  - b. less than 1.
  - c. greater than 1.
  - d. 0.
- \_\_\_\_\_ 7. Which of these could be considered an inclined plane wrapped around a cylinder?
  - a. lever
  - b. screw
  - c. wheel and axle
  - d. pulley
- \_\_\_\_\_ 8. The ideal mechanical advantage of a wheel and axle is equal to the
  - a. radius of the wheel divided by the radius of the axle.
  - b. radius of the axle divided by the radius of the wheel.
  - c. radius of the wheel divided by the length of the axle.
  - d. length of the axle divided by the radius of the wheel.
- \_\_\_\_\_ 9. A machine that uses two or more simple machines is called a
  - a. combination machine.
  - b. compound machine.
  - c. mechanical machine.
  - d. mixed machine.
- \_\_\_\_\_ 10. A device with toothed wheels that fit into one another is called a
  - a. system of gears.
  - b. wheel and axle.
  - c. pulley.
  - d. fulcrum.