

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.