

Section Review

- 1.** For each of the following statements, identify whether the everyday or the scientific meaning of work is intended.
 - a.** Jack had to work against time as the deadline neared.
 - b.** Jill had to work on her homework before she went to bed.
 - c.** Jack did work carrying the pail of water up the hill.
 - d.** Jill works 20 hours a week.
- 2.** If a neighbor pushes a lawnmower four times as far as you do but exerts only half the force, which one of you does more work? By how much?
- 3.** For each of the following cases, indicate whether the work done on the second object in each example will have a positive or a negative value.
 - a.** The road exerts a friction force on a speeding car skidding to a stop.
 - b.** A rope exerts a force on a bucket as the bucket is raised up a well.
 - c.** Air exerts a force on a parachute as the parachutist slowly falls to Earth.
 - d.** The Earth exerts a force on a bobsled as it moves down a track.
- 4.** Determine whether work is being done in each of the following examples:
 - a.** a train engine pulling a loaded boxcar initially at rest
 - b.** a tug of war that is evenly matched
 - c.** a crane lifting a car