

Work Quiz 1

1. Work is done on an object whenever the object

- ☐ A. moves.
- ☐ B. is moved by a force.
- ☐ C. has a force acting on it.
- ☐ D. is pushed or pulled.

2. In which of the following statements is the scientific meaning of the term *work* intended?

- ☐ A. Charlie said he had to do a lot of work filling out his college applications.
- ☐ B. Lucinda spent time working on the rehearsal for the class play.
- ☐ C. Jerome did work when he moved the refrigerator to clean behind it.
- ☐ D. Amy said it was hard work doing research for her term paper.

3. In which of the following actions is the person doing work on the underlined object?

- ☐ A. A person holding a computer monitor carries it horizontally across a room to a desk.
- ☐ B. A person lifts a heavy carton from a chair to a high shelf.
- ☐ C. A person holds a bucket steady while it is being filled with water.
- ☐ D. A person pushes hard while attempting to slide a chest of drawers along the floor, but the chest does not move.

4. In which of the following actions is work *not* being done on the underlined object?

- ☐ A. A hammer strikes the head of a nail and drives the nail into a board.
- ☐ B. A flowerpot falls off a window ledge.
- ☐ C. A baseball strikes the side of a car, making a permanent dent in the metal.
- ☐ D. After stubbing a toe, a person leans against a tree trunk in order to rub the toe.

5. A 450 g hammer is raised in a vertical direction. If 17 J of work is required to raise the hammer, what distance did the hammer move?

- ☐ A. 38 m
- ☐ B. 26 m
- ☐ C. 3.9 m
- ☐ D. 3.8×10^{-2} m

6. How much work is being done on a couch when it is pushed 11.5 m by a force of 326 N at an angle of 20.0° above the horizontal?

- ☐ A. 3520 J
- ☐ B. 3749 J
- ☐ C. 1280 J
- ☐ D. 381 J

7. In which choice is negative work being done on the underlined object?

- ☐ A. The force supplied by the engine of a car causes the car to move backward.
- ☐ B. A pump exerts a force on water as the water is pumped up a hill.
- ☐ C. While in contact with the ball, a tennis racket supplies a force that causes the ball to move.
- ☐ D. A brake supplies the force of friction that brings a roller coaster to a stop.