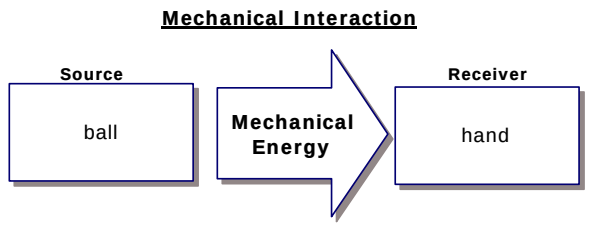
InterActions Unit 2 Chapter 1 Sample Quiz

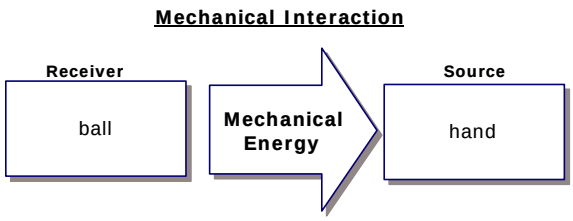
Use your Scientists' Consensus Ideas sheets for assistance.

1. Which of the following energy diagrams describes the interaction between you and the ball you throw.

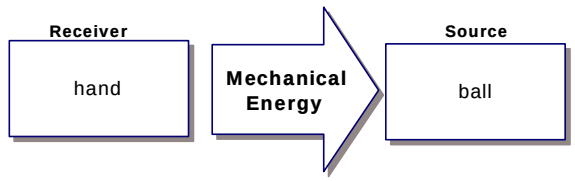
a.



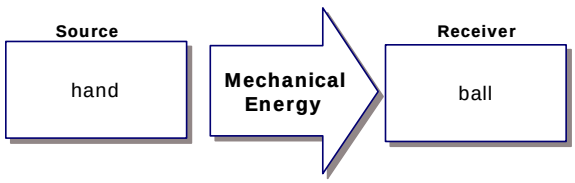
b.



c.

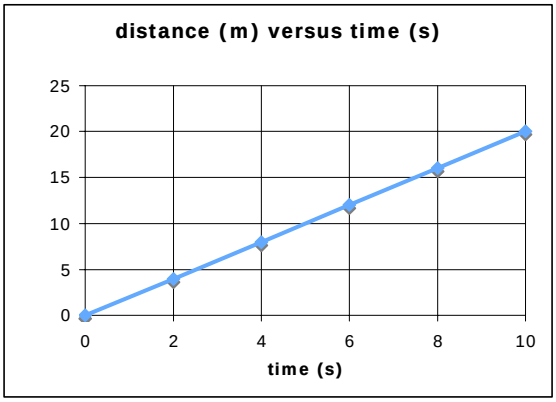


d.

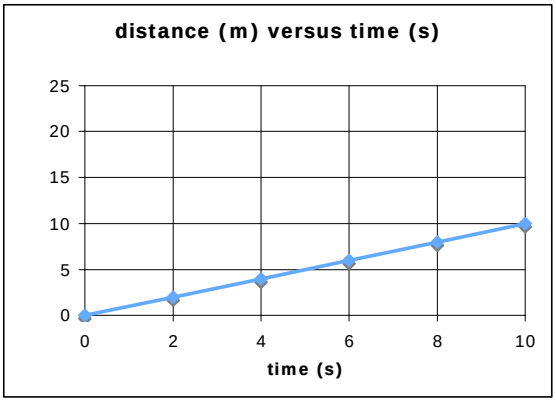


Use the images below to answer questions 2 through 4

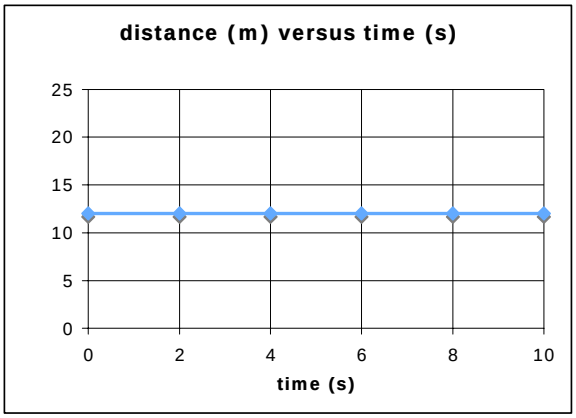
a.



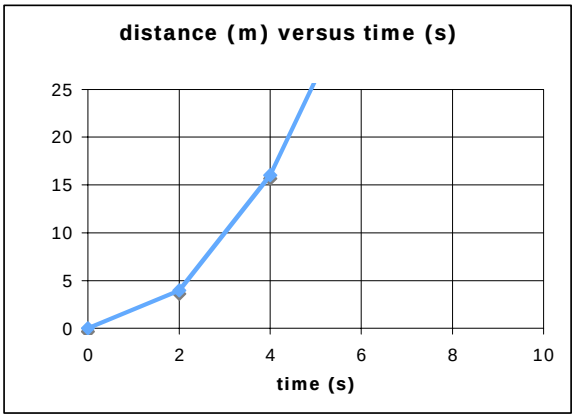
b.



c.



c.



2. Look at the graphs showing distance versus time of a car. Which car has the greatest constant speed?

   a.

   b.

   c.

   d.

3. Look at the graphs showing distance versus time of a car. Which car has zero speed?

    a.

    b.

    c.

    d.

4. Look at the graphs showing distance versus time of a car. Which car is speeding up?

    a.

    b.

    c.

    d.

5. Sandra rides her bicycle from her house to school. Her speed varies from 0 to 0.28 miles/min. The trip takes her 20 min to travel the 3 mile distance. Sandra's average speed is

    a. 0.14 min/mile

    b. 0.14 miles/min

    c. 0.10 miles/hour

    d. 0.15 min/mile

    e. 0.15 miles/min

6. A car is slowing down for a stop sign. It slows down from 14 m/s to a stop over a distance of 40 m in 15 s. What is the car's average speed while it is slowing down?

    a. 0.38 m/s

    b. 0.93 m/s

    c. 2.67 m/s

    d. 7 m/s

7. The acceleration of a car is

    a. its speed and direction

    b. how it is changing its location and its direction

    c. how it is changing its speed and the direction it is moving in

    d. how it is changing its speed and or its direction of motion.

8. Maurice runs track. His race speed varies from 0 to 5 m/s. His average race speed is 4.5 m/s. If Maurice runs the 400 m race, about how much time should it take him?

    a. 44.4 s

    b. 160 s

    c. 88.9 s

    d. 80 s

9. A light source shines on a solar cell connected in a closed circuit containing a buzzer. Complete the energy diagrams below