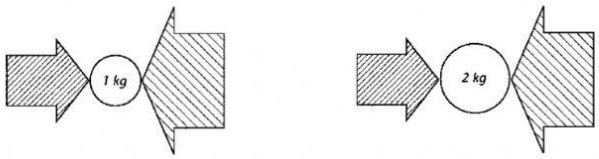
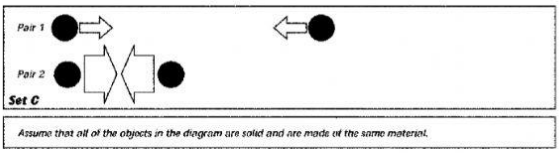
Chapter Ten Test

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

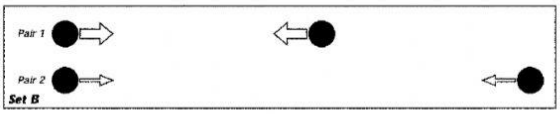
Forces on Two Objects



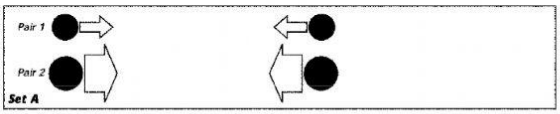
1. The width of each arrow indicates
   a. that the force is balanced.
   b. the size of the force.
   c. how sharply the forces push on the ball.
   d. the direction of the force.
2. Compare the acceleration of the 1-kg object with that of the 2-kg object.
   a. the acceleration of both objects will be the same.
   b. the 1-kg object will have twice the acceleration of the 2-kg object.
   c. the 1-kg object will have less acceleration than the 2-kg object.
   d. neither object will accelerate.
3. In what direction is the net force acting on the 1-kg object?
   a. the forces are balanced.
   b. to the right.
   c. upward.
   d. to the left.



4. In Set C, the difference in the magnitudes of the gravitational forces between the two pairs of objects is because
   a. There is no difference between in the forces between Pair 1 and 2.
   b. Pair 1 and 2 have the same mass, but Pair 2 is closer, so they exert more gravity on each other.
   c. Pair 2 has more mass then Pair 1
   d. Pair 1 represents planets with no atmosphere.



5. In Set B, the difference in the magnitudes of the gravitational forces between the two pairs of objects is because
   a. Pair 2 has less mass then Pair 1
   b. Pair 1 and 2 have the same mass, but Pair 1 is closer, so they exert more gravity on each other.
   c. Pair 1 represents planets with an atmosphere
   d. There is no difference in the forces between Pair 1 and 2.



6. In Set A, what would you have to do to the objects to make the gravitational forces between the objects in Pair 1 the same as the forces between the objects in Pair 2?
   a. Move the objects in Pair 2 father apart.
   b. There is no way to change the gradational forces.
   c. Move the objects in Pair 2 closer together.
   d. Move the objects in Pair 1 farther apart.
7. In Set A the gravitational forces between Pair 2 are greater then between Pair 1 because
   a. Pair 1 represents planets with no atmosphere
   b. Pair 2 has less mass then Pair 1
   c. Pair 2 represents planets with an atmosphere
   d. Pair 1 has less mass then Pair 2
8. Two figure skaters who push off of each other will move at the same speed if
   a. they have the same mass.
   b. they push with the same force.
   c. the ice does not cause any friction.
   d. there is no air resistance.
9. Which of the following is an example of increasing friction intentionally?
   a. throwing sand on an icy driveway
   b. oiling a squeaky door
   c. adding grease to gears on a bike
   d. waxing skis
10. The amount of matter in an object is called its
    a. force.
    b. weight.
    c. mass.
    d. balance.