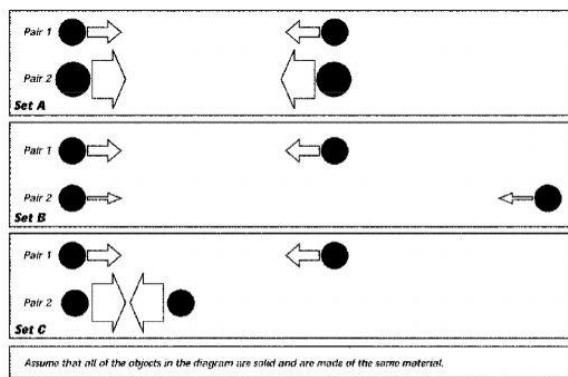
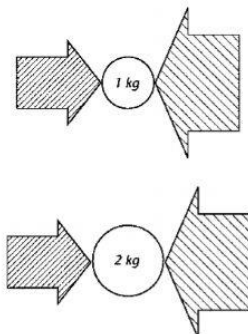




21. In Set A the gravitational forces between Pair 2 are greater than between Pair 1 because
  - a. Pair 2 has less mass than Pair 1
  - b. Pair 2 represents planets with an atmosphere
  - c. Pair 1 represents planets with no atmosphere
  - d. Pair 1 has less mass than Pair 2
22. In Set C, the difference in the magnitudes of the gravitational forces between the two pairs of objects is because
  - a. Pair 2 has more mass than Pair 1
  - b. Pair 1 and 2 have the same mass, but Pair 2 is closer, so they exert more gravity on each other.
  - c. Pair 1 represents planets with no atmosphere.
  - d. There is no difference between the forces between Pair 1 and 2.
23. In Set B, the difference in the magnitudes of the gravitational forces between the two pairs of objects is because
  - a. Pair 1 and 2 have the same mass, but Pair 1 is closer, so they exert more gravity on each other.
  - b. Pair 2 has less mass than Pair 1
  - c. There is no difference in the forces between Pair 1 and 2.
  - d. Pair 1 represents planets with an atmosphere
24. 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 farther apart.
  - b. There is no way to change the gravitational forces.
  - c. Move the objects in Pair 2 closer together.
  - d. Move the objects in Pair 1 farther apart.

#### Forces on Two Objects



25. Compare the acceleration of the 1-kg object with that of the 2-kg object.
  - a. the 1-kg object will have twice the acceleration of the 2-kg object.
  - b. the acceleration of both objects will be the same.
  - c. the 1-kg object will have less acceleration than the 2-kg object.
  - d. neither object will accelerate.
26. In what direction is the net force acting on the 1-kg object?
  - a. to the right.
  - b. the forces are balanced.
  - c. to the left.
  - d. upward.
27. The width of each arrow indicates
  - a. the size of the force.
  - b. how sharply the forces push on the ball.
  - c. the direction of the force.
  - d. that the force is balanced.
28. One way to increase acceleration is by
  - a. increasing mass.
  - b. decreasing mass.
  - c. decreasing force.
  - d. increasing both force and mass proportionally.
29. The overall force on an object after all the forces are added together is called the \_\_\_\_\_ force.
30. \_\_\_\_\_ forces acting on an object produce a change in motion.