**Review: Gravity and Friction**

**Read each question. Circle the letter of the correct answer.**

**1.** Which of these describes the gravitational force from a planet?

**A.** large and pulls objects toward itself

**B.** small and pulls objects toward itself

**C.** large and pushes objects away from itself

**D.** small and pushes objects away from itself

**2.** Which pair of objects has the largest gravitational force?

**A.** marble and car

**B.** marble and baseball

**C.** car and bowling ball

**D.** There is no gravitational force between any of these pairs of objects.

**3.** Sean is moving heavy furniture by sliding it across the floor. He puts a blanket underneath the furniture. Why did this help him?

**A.** The blanket protects the side of the furniture from bumping against the wall.

**B.** The blanket reduces the gravitational force between the furniture and the floor.

**C.** The friction is larger between the blanket and the floor than between the furniture and the floor.

**D.** The friction is smaller between the blanket and the floor than between the furniture and the floor.

**4.** Two basketballs are sitting 1 m apart and are not moving. Which best explains why the gravitational force does not cause them to move?

**A.** No gravitational force exists between the two objects because they are not touching.

**B.** The gravitational force between the two objects is weak because they are 1 m apart.

**C.** No gravitational force exists between the two objects because their masses are small.

**D.** The gravitational force between the two objects is weak because their masses  
are small.

**5.** If someone drops a cup, it falls to the ground. Why doesn’t the gravitational force between the person’s hand and the cup keep the cup from falling?

**A.** The cup does not experience any gravitational force because it is not a planet.

**B.** The gravitational force between the hand and the cup is so strong that it pushes the cup down.

**C.** There is no gravitational force between the hand and the cup, so Earth’s gravitational force pulls the cup down.

**D.** There is a gravitational force between the hand and the cup, but Earth’s gravity is stronger, so Earth’s gravity pulls the cup down.

**6.** In which situation is it better to have   
low friction?

**A.** a skydiver uses a parachute

**B.** a student walks down a hallway

**C.** a ladder leans against the wall

**D.** a hockey puck slides toward the goal

**7.** Planets A and B are both the same size, but planet B has three times the mass of planet A. How does the weight of an object compare on the two planets?

**A.** The weight of an object is the same on   
both planets.

**B.** The weight of an object is three times larger on planet A.

**C.** The weight of an object is three times larger on planet B.

**D.** The weight of an object will depend on more factors than just the weight and size of the planet.

**Read each statement. Write your answer on the lines.**

**8.**

A carpenter uses sandpaper on a piece of wood. Before, the wood felt rough. After, the wood  
felt smooth.

Did the friction between the hand and the wood increase or decrease after using the sandpaper?

Describe what the sandpaper did to the wood to make it smoother.