2.1 Review Questions

1. Which is more massive, 1.0 Kg of bricks or 1.0 Kg of feathers?

2. Why is it more difficult for you to stop a 10 Kg cannonball traveling 5.0 m/s than a 0.5 kg baseball traveling 5.0 m/s?

3. What does the "outside, unbalanced" mean in the First Law of Motion?

4. If you were in deep space where there is no gravity, would it require a force to set an object in motion?

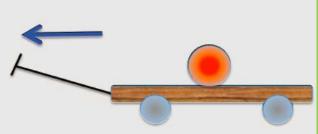
5. What advantages do brass knuckles give to a person throwing a punch?

6. When pulling a tablecloth out from beneath a stack of dishes, should you use paper plates or clay plates? Why?

7. The head of a hammer is loose on the handle. To tighten it you can either slam the hammer down head first, or you can slam the butt of the handle down. Which way would make the head stick tighter to the handle? Why?

8. A ball is sitting <u>on</u> a stationary wagon like this and then the wagon is pulled quickly in the direction shown.

a. Describe (or draw) the motion of the ball relative to the wagon.b. Describe (or draw) the motion of the ball relative to the ground.



9. A person is sitting in a car traveling 34 m/s. Why does the person get pushed to the left when the car turns to the right?

10. If you are being chased by an elephant, how can you get away from it? Why does this work?

11. An astronaut on the Space Shuttle is whirling a rock on a string as shown below. If the string were to snap when the rock was at point A, describe the path that the ball would follow.

