Pg 9 Physics Talk: Newton’s First Law of Motion

1. Write Newton’s First Law of Motion.
2. Inertia is when an object remains at rest or remain in motion with a constant speed in a straight line.

What did Newton explain about an object’s mass?

1. Would the 10 kg cart or the 100 kg cart be more difficult to move?
2. If both carts were moving, which cart would be harder to stop?
3. How fast is the cannon ball moving when the skateboard is traveling 3 m/s?
4. The ball’s speed is the sum of *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_* and *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*.
5. How can the ball move at both 7 m/s and 10 m/s at the same time?
6. What is your frame of reference if you are riding on a train? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Standing on a train platform? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Standing on the Earth? \_\_\_\_\_\_\_\_\_\_\_\_\_

Riding in a car? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. How can an athlete get a ball to move faster when they throw it?
2. Answer Sample Problem I questions a) – d) on page 11.