

## 7 The Laws of Motion

Worksheet B: CONCEPTS TEST REVIEW

Name \_\_\_\_\_

AP Physics B

**Each statement has at least one conceptual flaw. In two or three sentences, thoroughly explain why the statement is false. Include in your answer a correct interpretation of the stated concepts.**

1. If all the forces on an object are balanced, the object cannot be in motion.
2. A passenger sitting in the rear of a bus claims he was injured when the driver slammed on the brakes, causing a suitcase to come flying toward him from the front of the bus.
3. If a person is not wearing a seat belt in a collision, his or her stopping time could be increased and that would increase the rate of acceleration and thus increase the force applied to the person.
4. If a force in opposition to the motion of an object is applied for a sufficiently long time, the acceleration of the object will approach zero and then reverse directions.

