

Name:

Date:

Period:

5. Definitions:

(a) mechanical equilibrium

(b) inertia

(c) weight

(d) mass

(e) F_G

(f) g

6. List each of Newton's Laws

7. If Newton's third law is correct, then a tiny smart car feels the same force as a huge semi-truck when the two have a head on collision. Why would you rather be riding in the semi-truck?

8. Explain which of Newton's 3 laws best describes the situation.

(a) You are drinking a cup of coffee while driving. When you slam on the brakes, your coffee spills out.

(b) If you are standing in a boat, and step out onto the dock, the boat moves away from you.

(c) As you add more items to a grocery cart, you notice its acceleration decreases.

(d) You are wearing roller blades and stand facing a brick wall. You push forward, against the wall, but end up traveling backwards. Why?