Newton's First Law

Directions: Read the questions below and select the best answer!

1. What is Newton's First Law of Motion?
    a. An object will remain at rest or stay in motion until a force acts on it.
    b. Acceleration depends on the force acting on the object and its mass.
    c. For every force there is an equal and opposite force.
    d. Objects naturally come to a stop over time.

2. Rona is sitting on the couch. According to Newton's First Law, why doesn't she move?
    a. Because gravity is pulling her down.
    b. Because she has no inertia.
    c. Because no unbalanced force is acting on her horizontally.
    d. Because she's too heavy to move.

3. Which one is an example of Newton's First Law?
    a. Pushing a cart full of groceries requires more force than pushing a cart with less groceries.
    b. When pushing on a table, you don't fall through.
    c. A golf ball is hit forward and the golf ball pushes back.
    d. A wagon is rolling down a hill and is stopped by a fence, but the person inside keeps moving forward.

4. What happens to you in a car when it suddenly stops?

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a. You stay perfectly still.

b. You move backward.

c. You move forward due to the inertia.

d. You move sideways.

5. If there are NO forces acting on an object, an object in motion will:

a. Eventually stop moving.

b. Speed up gradually.

c. Change direction randomly.

d. Continue moving at constant velocity.

6. A soccer ball rolling on grass eventually stops because:

a. It runs out of inertia.

b. Friction acts as an external force.

c. Gravity pulls it down.

d. Air pushes it backward.

7. What is inertia?

a. The speed of an object

b. The force that stops objects

c. The tendency of an object to resist changes in its state of motion

d. The weight of an object

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