

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?

- 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