

Newton's Law of Inertia GRADE CHECK.

Section A (Scale 2.0) Understanding

1. True or False: The tendency to resist change is called inertia.
2. True or False: A force is any push or pull on an object.
3. True or False: The force of gravity on an object is called mass.
4. What is equilibrium? _____.

Section B (Scale 3.0) Demonstration

5. List your weight in pounds (lbs). Convert your weight into mass (kg) and gravitational Force (N).
_____.
6. When a junked car is crushed into a compact cube, which quantities change: Mass, Volume, Weight? Choose and explain.
_____.
7. If forces of 10 N and 15 N act in opposite directions on an object, what is the net force exerted? Draw a picture to illustrate the problem.

_____.

Section C (Scale 4.0) Application

8. Many automobile passengers suffer neck injuries when struck by cars from behind. How does Newton's Law of Inertia apply here? How do headrests help to guard against this type of injury?

_____.

Score 4.0	All Sections answered completely and correctly without help.
Score 3.5	In addition to Score 3.0 performance, partial success at Score 4.0 content.
Score 3.0	Sections 2.0 and 3.0 answered completely and correctly without help.
Score 2.5	No major errors/omissions regarding Score 2.0 and partial success on Score 3.0 content.
Score 2.0	Only Section 2.0 answered completely and correctly without help.
Score 1.5	Partial success on Score 2.0 content, but major errors/omissions regarding Score 3.0 content.
Score 1.0	With help, partial success at Score 2.0 content and Score 3.0 content.
Score 0.5	With help, partial success at Score 2.0 content, but not a Score 3.0 content.
Score 0.0	Even with help, no success.