

FORCES AND MOTION

Name: _____

Date: _____

QUIZ

1. Complete the following statements.

- A. According to Newton's first law, an object will remain at rest or continue to move in a straight line at a constant velocity if it is not acted upon by _____.
- B. The _____ is the tendency of objects to maintain their state of rest or motion unless a force is applied to change it.
- C. Newton's third law says that every action has a _____ and _____ reaction.

2. Multiple choice

- A. An object at rest or in motion at constant velocity will remain in that state unless a force is applied.
- a) Newton's first law
 - b) Newton's second law
 - c) Newton's third law
- B. Select the force in play
- A skydiver reaches a maximum velocity when falling due to air resistance. What force is acting to balance his fall?
- a) Gravity force
 - b) Frictional force (air resistance)
 - c) Inertia
- C. Select the correct definition
- It is defined as the tendency of an object to resist changes in its state of motion.
- a) Force
 - b) Inertia
 - c) Acceleration

3. **True or False**

- a) Acceleration only means increasing the velocity of an object.
- b) A professional cyclist on a light bicycle will accelerate faster than a normal person on a heavy bicycle because of Newton's second law.
- c) The maximum speed of an object falling through the air is 200 kph due to air resistance.
- d) Newton's third law states that only objects in motion experience forces.