

Name _____



Forces and Motion

Directions circle the correct answer. You may check your answers by scanning in the QR Code

- 1) It has a volume that stays the same, but it can change its shape. What is it?
 - a. gas
 - b. solid
 - c. mass
 - d. liquid

- 2) What is a Newton?
 - a. a unit of measure for weight
 - b. a unit of measure for distance
 - c. a unit of measure for mass
 - d. a unit of measure for force

- 3) Which of Newton's laws states that an object at rest tends to stay at rest, and that an object in motion tends to stay in motion, unless acted upon by an external force?
 - a. Newton's First Law of Motion
 - b. Newton's Second Law of Motion
 - c. Newton's Third Law of Motion
 - d. None of the above

- 4) Newton's Second Law of Motion explains the relationship between
 - a. mass, force, and velocity
 - b. mass, force, and acceleration
 - c. mass, acceleration, and static force
 - d. velocity, force, and air resistance

- 5) A car is at rest due to balanced forces. What is this an example of?
 - a. Newton's Second Law
 - b. Newton's First Law
 - c. Newton's Third Law
 - d. Gravitational Law

6) If the forces acting on an object are unbalanced, what happens?

- a. The object remains at rest.
- b. The object will not move.
- c. The object moves in constant motion.
- d. The object accelerates.

7) A car accelerates due to unbalanced forces. What is this an example of?

- a. Newton's Third Law
- b. Newton's First Law
- c. Newton's Second Law
- d. Gravitational Law

8) Billy and Penny are playing tug of war. Billy is pulling at a force of 10 Newtons South. Penny is pulling with a force of 12 Newtons North. Predict the outcome of this tug of war battle.

- a. 2 Newtons of force, North, Penny is winning
- b. 2 Newtons of force, South, Marco is winning
- c. 22 Newtons of force, North, Janice is winning
- d. 22 Newtons of force, South, Marco is winning

9) The weight of an object

- a. stays the same wherever the object is
- b. changes if the object is in motion
- c. stays the same as long as the object is in motion
- d. changes if the force of gravity changes

10) _____ is the tendency of an object to remain at rest or in constant motion unless a force acts on it.

- a. Gravity
- b. Friction
- c. Inertia
- d. Acceleration