

Identify the letter of the choice that best completes the statement or answers the question.

1. According to Newton's third law of motion, when a hammer strikes and exerts force on a nail, the nail
 - a. creates a friction with the hammer.
 - b. exerts an equal force back on the hammer.
 - c. disappears into the wood.
 - d. moves at a constant speed.
2. Which law can explain how gases released from burning fuel in a rocket produce thrust?
 - a. Newton's second law of motion
 - b. Newton's first law of motion
 - c. Newton's third law of motion
 - d. the law of conservation of momentum
3. The law of universal gravitation states that any two objects in the universe, without exception,
 - a. attract each other.
 - b. repel each other.
 - c. create friction.
 - d. combine to provide a balanced force.
4. Two figure skaters who push off of each other will move at the same speed if
 - a. they push with the same force.
 - b. there is no air resistance.
 - c. the ice does not cause any friction.
 - d. they have the same mass.
5. The force of gravity on a person or object at the surface of a planet is known as
 - a. air resistance.
 - b. mass.
 - c. weight.
 - d. inertia.
6. The greater the mass of an object,
 - a. the more balanced it is.
 - b. the more space it takes up.
 - c. the easier the object starts moving.
 - d. the greater its inertia.
7. The force that one surface exerts on another when the two rub against each other is called
 - a. friction.
 - b. acceleration.
 - c. inertia.
 - d. gravity.
8. A place or object used for comparison to determine if something is in motion is called
 - a. a position.
 - b. velocity.
 - c. a reference point.
 - d. a constant.
9. The rate at which velocity changes is called
 - a. acceleration.
 - b. motion.
 - c. direction.
 - d. speed.
10. The metric unit that is most often used to describe weight is the
 - a. Kilogram (kg)
 - b. Pound (lbs)
 - c. Newton (N)
 - d. Ounce (oz)