Physics Final Review – 8th grade

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

____ 1. Friction is a force that
a. opposes an object's motion.
b. does not exist when surfaces are very smooth.
c. decreases with larger mass.
d. All of the above

____ 2. The amount of gravity between 1 kg of lead and Earth is ____ the amount of gravity between 1 kg of marshmallows and Earth.
a. greater than
b. less than
c. the same as
d. None of the above

____ 3. Two forces act on an object. One force has a magnitude of 10 N and is directed toward the north. The other has a magnitude of 5 N directed toward the south. The object experiences a net force of
a. 5 N south.
b. 15 N north.
c. 50 N north.
d. 5 N north.

____ 4. A reference point for determining position and motion could be
a. the Earth's surface.
b. a building.
c. a moving object.
d. All of the above

____ 5. The distance traveled divided by the time it took to travel that distance determines an object's
a. speed.
b. acceleration.
c. weight.
d. force.

____ 6. The SI unit for speed is
a. km/h.
b. f/s.
c. m/s.
d. m/h.

____ 7. If a bus traveling 15 m/s south speeds up to 20 m/s, this is a change in its
a. speed.
b. velocity.
c. acceleration.
d. All of the above

____ 8. You are on a bus traveling 15 m/s east and you decide to move from the front of the bus to the back walking at a rate of 1 m/s. Your resultant velocity is
a. 1 m/s west.
b. 15 m/s east.
c. 14 m/s east.
d. 14 m/s west.

____ 9. A cheetah runs eastward at a velocity of 27 m/s. Two seconds later, it tackles its prey to the ground. What is the cheetah's acceleration?
a. 27 m/s eastward
b. 27 m/s/s eastward
c. 13.5 m/s eastward
d. –13.5 m/s/s eastward

____ 10. When velocity decreases, this could be referred to as
a. acceleration.
b. deceleration.
c. negative acceleration.
d. All of the above

____ 11. What is the net force when you combine a force of 7 N north with a force of 5 N south?
a. 2 N north
b. 2 N south
c. 12 N north
d. 12 N south

____ 12. Balanced forces applied to an object
a. produce a net force of zero.
b. change the direction of a moving object.
c. cause an object at rest to start moving.