

## Physics Final Review – 8<sup>th</sup> grade

### Multiple Choice

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

- \_\_\_ 1. Friction is a force that
- opposes an object's motion.
  - does not exist when surfaces are very smooth.
  - decreases with larger mass.
  - 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.
- greater than
  - less than
  - the same as
  - 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
- 5 N south.
  - 15 N north.
  - 50 N north.
  - 5 N north.
- \_\_\_ 4. A reference point for determining position and motion could be
- the Earth's surface.
  - a building.
  - a moving object.
  - All of the above
- \_\_\_ 5. The distance traveled divided by the time it took to travel that distance determines an object's
- speed.
  - acceleration.
  - weight.
  - force.
- \_\_\_ 6. The SI unit for speed is
- km/h.
  - f/s.
  - m/s.
  - m/h.
- \_\_\_ 7. If a bus traveling 15 m/s south speeds up to 20 m/s, this is a change in its
- speed.
  - velocity.
  - acceleration.
  - 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
- 1 m/s west.
  - 15 m/s east.
  - 14 m/s east.
  - 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?
- 27 m/s eastward
  - 27 m/s/s eastward
  - 13.5 m/s eastward
  - 13.5 m/s/s eastward
- \_\_\_ 10. When velocity decreases, this could be referred to as
- acceleration.
  - deceleration.
  - negative acceleration.
  - 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?
- 2 N north
  - 2 N south
  - 12 N north
  - 12 N south
- \_\_\_ 12. Balanced forces applied to an object
- produce a net force of zero.
  - change the direction of a moving object.
  - cause an object at rest to start moving.