

Student Name: \_\_\_\_\_

Date: \_\_\_\_\_

Period #: \_\_\_\_\_

Unit 1: Quiz 1

***Physics Vocabulary & Physical Quantities of Interest***

1. Answer the questions below using words from the following list:

direction	magnitude
displacement	vector
velocity	scalar
acceleration	

- a. Velocity differs from speed in that velocity indicates a particle's \_\_\_\_\_ of motion.
- b. Unlike speed, velocity is a \_\_\_\_\_ quantity.
- c. A vector has, by definition, both \_\_\_\_\_ and direction.
- d. \_\_\_\_\_ represents how an objects \_\_\_\_\_ is changing.
- e. When a person walks around the track once, returning to their starting position, their \_\_\_\_\_ is zero.
- f. Unlike velocity, speed is a \_\_\_\_\_ quantity.

2. Determine if each of the following statements is **true (T)** or **false (F)**.

\_\_\_\_\_ Speed is velocity in a given direction.

\_\_\_\_\_ The speed of a plane can be described as 300 mi/h.

\_\_\_\_\_ The velocity of a car can be described as 60 km/h to the north.

\_\_\_\_\_ Speed is a vector quantity.

\_\_\_\_\_ Velocity is a vector quantity.

3. What is acceleration?

4. How is acceleration calculated?

5. Circle the letter of the value and units that represent acceleration.

a. 5 m

b. 15 m/s

c. 25 s/m

d. 15 m/s<sup>2</sup>