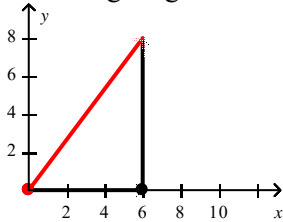


True/False Indicate whether the statement is true or false by placing a **T** or an **F** beside the question number.

- ___ 1. Distance is an example of a *scalar* quantity. _____
- ___ 2. *Velocity* is the change in position of an object. _____
- ___ 3. The average *velocity* of a moving object is the total distance travelled divided by the total time elapsed.

- ___ 4. Motion with *non-uniform* velocity is motion at a constant speed in a straight line. _____
- ___ 5. Displacement is an example of a *vector* quantity. _____
- ___ 6. The following diagram shows the resultant vector after adding 8 m [E] and 6 m [N] . _____



- ___ 7. *Kinematics* explains why objects move the way they do. _____
- ___ 8. When an object sits on a slope, gravity will point *perpendicular to the surface*. _____
- ___ 9. The *net force* acting on an object is also known as the resultant force. _____
- ___ 10. For a book that is sitting on a desk, the normal force acting on the book is *greater than* the gravitational force.

- ___ 11. Force is a *scalar* quantity. _____
- ___ 12. The gravitational field strength of Earth is *weaker* at the poles than it is at the equator.

- ___ 13. On the Moon or a planet other than Earth, your *weight is different but your mass is the same*.

- ___ 14. A round object rolling across a surface will experience *fluid friction*. _____
- ___ 15. Increasing the speed of an object will *increase* the air resistance acting on it. _____
- ___ 16. The *coefficient of friction* is the ratio of the magnitude of the force of friction acting on an object to the magnitude of the normal force acting on the object. _____
- ___ 17. Work is a *vector* quantity. _____
- ___ 18. The SI unit for work is the *joule*. _____
- ___ 19. The latent heat of *vaporization* is the amount of thermal energy required to change a solid into a liquid or a liquid into a solid. _____
- ___ 20. The material through which a mechanical wave travels is called a *vibration*. _____

- ___ 21. A *longitudinal* wave is a wave in which particles vibrate perpendicular to the direction of the flow of energy. _____
- ___ 22. Identical waves are *in phase* if they have different phase shifts. _____
- ___ 23. An infrasonic wave is a sound wave with a frequency *below* 20 Hz. _____
- ___ 24. The point where air and water meet is an example of a *media boundary*. _____
- ___ 25. Increasing the tension in the string of a stringed instrument *increases* the fundamental frequency at which it will vibrate. _____

Matching Place the letter of choice next to the question.

Match each term with the most appropriate description. Answers may be used only once.

- a. free fall
- b. terminal speed
- c. force field
- d. near frictionless carbon
- e. weight
- f. synovial fluid
- g. static friction
- h. kinetic friction
- i. hydroplaning
- j. ball bearings
- k. magnetic bearing

- ___ 1. a material that may one day be used in machines to completely reduce friction
- ___ 2. a measure of the effect of the gravitational field strength on an object
- ___ 3. a device that uses lubricated metal balls to reduce friction
- ___ 4. a type of bearing that uses magnets to levitate parts in relative motion
- ___ 5. the force of friction that acts on stationary objects
- ___ 6. a region of space that can exert a force on other objects
- ___ 7. the maximum constant speed of a falling object
- ___ 8. occurs when a car loses traction with the ground because of water
- ___ 9. the motion of an object where the only force acting on it is gravity
- ___ 10. a liquid found in joints that greatly reduces friction
- ___ 11. the force of friction acting in opposition to a moving object

Solutions #1-25 True False

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.
T	F	F	F	T	F	F	F	T	F	F	F	T	F	T	T	F	T	F	F	F	F	T	T	T

Solutions #1-11 Matching

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
D	E	J	K	G	C	B	I	A	F	H