**Creativity in Physics Test 1 Review**

**Physics the fundamental science**

1. Which of these is not part of the scientific method?

A. Experimentation

B. Obtain funding

C. formulating a hypothesis

1. An automotive crash-test engineer would fall under what subfield of physics?
2. Mechanics
3. Optics
4. Electricity and magnetism
5. What is the distinction between explanations provided by science and religion?
6. Truth
7. Testability
8. Simplicity

**Describing motion**

1. The slope of a distance versus time graph is the
2. Acceleration
3. Velocity
4. Distance
5. Police officers patrolling a highway are enforcing which measure?
6. Instantaneous velocity
7. Average speed
8. Instantaneous speed
9. Which of these would not be an example of a vector?
10. Distance
11. Speed
12. Acceleration

**Falling objects and projectile motion**

1. The horizontal speed of a projectile:
2. Remains constant
3. Is zero
4. Sometimes increases and sometimes decreases
5. The vertical speed of a projectile:
6. Remains constant
7. Is zero
8. Sometimes increases and sometimes decreases
9. If a heavy object and a light object are dropped from a height of 5 meters at the same time, and assuming no air resistance or friction, which object hits the ground first?
10. Heavy object
11. Light object
12. Hit the ground at the same time

**Newton’s laws**

1. What is the definition of terminal velocity?
2. The maximum velocity created by the force of gravity
3. The maximum velocity possible on earth
4. The velocity of a falling object once air resistance equals the force of gravity
5. Which of these statements is correct regarding weight?
6. It is equivalent to mass
7. It is the mass of an object multiplied by the acceleration due to gravity
8. It is zero for an object not in motion
9. Newton’s contributions to physics includes which of the following?
10. Field of optics
11. Field of electromagnetism
12. Field of quantum mechanics

**Circular motion and gravity**

1. Who is responsible for the heliocentric model of the planets?
2. Galileo
3. Copernicus
4. Newton
5. Centripetal acceleration is the rate of change in the velocity of the object created by a change in
6. Direction
7. Speed
8. Motion
9. Newton’s law of universal gravitation is based on this early astronomer’s work
10. Copernicus
11. Kepler
12. Galileo