Chapter 9: Matter, Kinetic Energy, Fluids, Pressure. Etc.

PRINT Name _____ Period _____

ALWAYS SHOW THE METHOD-- Hup, Two, Three, Four.

1. Compare Matter, Element, Compound, Mixture, Homogeneous, Heterogeneous.
2. Describe the relationship of molecules in a **Solid**, **Liquid**, and **Gas**.
3. Tell about **Plasmas**.
4. Define and Give Examples: **Cohesion**, **Adhesion**, and **Viscosity**.
5. Define: **Volatility**, **Tensile Strength**, **Ductility**, **Malleability.**
6. Define **Hooke's Law** and **Young's Modulus**.
7. Define the **Kinetic Theory** & List **Ten Evidences** supporting it.
8. Define **Pressure** and list **Four Units** of **Pressure** and List **Four Common pressures**.
9. Calculate the **Pressure** in grams/cm^2 at the bottom of a pool of water 400.0cm deep. Density of water = 1.00g/cm^3. Ans: 400.0g/cm^2.
10. Calculate the **Total Force** in grams on an area of 1000.0cm^2 at the bottom of the pool in problem 9. Ans: 400,000.0g.
11. State **Pascal's Law of Pressure** and give **Three** examples.
12. State **Bernoulli's Principle** and give **Three** examples.
13. State **Archimedes' Principle** and give **Three** examples.
14. Using Archimedes' Principle, find the buoyant force on a 3.0L object in Air. (Density of Air = 1.0g/L). Ans: 3.0g. Now find the buoyancy on the same object when immersed in water. (Density of water = 1.0kg/L). Ans: 3.0kg.
15. Discuss the **Three Principles** of the **Cartesian Diver**.
16. Explain why "Suction" pumps cannot raise water higher than 10m at sea level.
17. How can we show that **Air** has **Weight** and not **Levity**?