

### ***Sci-202 Day 6 Homework Questions (Final)***

1. What is the difference between a scientific *law* and a scientific *theory*? Why do many people make the mistake of thinking a law is a proven theory?
2. Imagine a pair of spoons lying on a counter, side-by-side in a cool room, one wood and one metal. If you pick up the metal spoon it will feel cooler than the wooden spoon. Why is that?
3. When SCUBA divers sink 100 ft. below the surface, they experience a pressure of about 4 atm or 60 psi. Explain why this phenomenal force does not crush their body.
4. Use an example of an everyday pair of objects to explain the difference between mass and density.
5. Tell how you would explain Archimedes' Principle to someone. The story of Archimedes and his bathtub usually ends by explaining that Archimedes figured out the crown was not pure gold by measuring its volume by water displacement, but that could *not* have happened. Explain why not.
6. Do some web research to look up and report the recipes for three different common alloys. Pick one and describe its physical characteristics and list several everyday uses for that alloy.