QUESTIONS TO HAND IN – EXPERIMENT 14

NAME_____

LAB INSTRUCTOR_____ **LAB DAY/TIME**_____

1. What happens to an object when the buoyant force is less than its weight in air?

2. What happens to an object when the buoyant force is greater than its weight in air?

3. An object has a volume of 1000 cm^3, and is fully immersed in water. What is the magnitude and direction of the buoyant force on it? The density of water is 1000 kg/m^3.

4. The object described above in Question 3 has a weight of 50 newtons. Will it float or sink? Explain.

5. This same object is placed in a bath of liquid mercury, which has a density of 13,600 kg/m^3. Will it float or sink? Explain.