POST LAB QUESTIONS

1. **In today's experiment, you examined appearance, odor, mass, volume, density, boiling point, and solubility of each unknown. Describe each of these properties as intensive or extensive.**

   Intensive properties is a property that is not affected by the amount of substance present. While an extensive property is on that depends on the amount of substance.

   Appearance is an intensive property because a substance will have the same characteristics no matter the amount of substance.

   Odor is an intensive property because it will have the same odor even with different amounts of substance.

   Mass is an extensive property because mass depends on the amount of substance there is.

   Volume is an extensive property because it's dependent on the space that is occupied by the substance.

   Density is an intensive property because the ratio of 2 extensive properties (mass/volume) will result in an intensive property.

   Boiling point is an intensive property because the boiling point will remain constant even with additional substance added to it.

   Solubility is an intensive property because it's solubility does not change even with additional substances.

2. **An unknown liquid was determined to have a density of about 0.80 g/mL. What is the minimum amount of testing that would be needed to identify it conclusively given the data in the Table in this experiment?**

   The 3 substances with densities closest to 0.80 g/ml are ethanol, acetone, and cyclohexane with the same density of 0.79 g/mol. The minimum amount of testing needed to accurately identify the unknown is checking for boiling point. The known substances all have different amounts of temperatures. So unknown liquid will be identified with next step.