Report for Experiment 20

Name_____

4. Use your experimental results to complete the following conversions. Show calculations below.

a. 1 drop of water = _____ g = _____ mL

b. 1 gram of water = _____ mL = _____ drops

c. 1 milliliter of water = _____ g = _____ drops

5. If you did not start with a completely dry graduated cylinder in step 1, would this affect your answers? If so, what part of the answer would be incorrect: the mass of water, the volume of water, or both? Explain.

6. If the drops of water from the pipet hit the sides of the graduate, how could this affect your answers? Again, be specific in describing what can go wrong.

7. The density of water is often assumed to be exactly one gram per milliliter. How close to that value did the slope of your graph come? If your value was not within 5% of the accepted value, that is, within the range of 0.95 g/mL $\leq$ density $\leq$ 1.05 g/mL, was there anything about the procedure that made it difficult for you to get a precise result? Explain.