

Name _____

Mr. Roderick

Period _____

Date _____

Measuring Liquid Volume with the Graduated Cylinder

Purpose

- To develop skill in measuring with the graduated cylinder.
- To use the metric system in measuring volume.

Materials

Red, blue, and yellow food coloring

Water

3 beakers

6 test tubes

Test tube stand

50-ml graduated cylinder

Labels for test tubes or marker

Procedure

1. Label each test tube (or it's slot on the rack) A, B, C, D, E, and F
2. Get three beakers of water, one of red water, one of blue water, and one of yellow water.
3. Into test tube A measure 19 ml of red water.
4. Into test tube C measure 18 mL of yellow water.
5. Into test tube E measure 18 ml of blue water.
6. *From test tube C* measure 4 ml and pour the 4ml into test tube D.
7. *From test tube E* measure 7 ml and add it to test tube D. Mix.
8. *From the beaker of blue water* measure 4 ml and pour it into test tube F. Then *from the beaker of red water* measure 7 ml and add it to test tube F. Mix.
9. *From test tube A* measure 8ml of water and pour it into test tube B. *From test tube C* measure 3 ml and add it to test tube B. Mix.

Observations and Conclusions

Complete the data below by listing the final colors in each test tube. Measure the total amount of water in each test tube.

Test Tube	Color of Water	Total Amount of Water
A		
B		
C		
D		
E		
F		

Analysis and Results:

1. Name the three different solutes in this experiment and the one solvent.
2. The solutions you made are also mixtures. Is mixing the colors together a physical change or a chemical change? Explain.
3. How many mL of liquid (total) did you have at the end of the lab? How many should you have? (Hint, look at the procedures)
4. What are some reasons why you may have more or less liquid compared to what you started out with?
5. Look at your hands. Do you have any stains on your hands? If so, those stains represent **chemicals** that would be on your skin **right now!**

Conclusion:

Write 2 – 3 complete sentences on what you learned in this lab.