

Objectives:

- ✓ to develop skills measuring chemicals with a graduated cylinder.
- ✓ to practice using the metric system.
- ✓ to test precision and ability to follow directions.
- ✓ to practice lab safety procedures.

Procedure:**Part 1:**

1. Label six test tubes in order: **A, B, C, D, E,** and **F**.
2. Fill a beaker half full with water. Use this beaker to rinse your graduated cylinder and your test tubes as needed.
3. The second beaker is for contaminated waste water.
4. Into test tube A, measure 25 mL of **red** liquid.
5. Into test tube C, measure 17 mL of **yellow** liquid.
6. Into test tube E, measure 21 mL of **blue** liquid.

Part 2:

1. From test tube C, measure 4 mL and pour into test tube D.
2. From test tube E, measure 7 mL and pour into test tube D. Swirl.
3. From test tube E, measure 4 mL and pour into test tube F.
4. From test tube A, measure 7 mL and pour into test tube F. Swirl.
5. From test tube A, measure 8 mL and pour into test tube B.
6. From test tube C, measure 3 mL and pour into test tube B. Swirl.
7. Save your results. Measure the contents of each test tube and record how many mL of liquid were found in each test tube.
8. Answer the Analysis/Result questions on the next page and write a Conclusion.

Data:

Table 1: Test Tube Results

Test Tube	Color of Liquid	Amount of Liquid (mL)
A		
B		
C		
D		
E		
F		
Total Liquid in Test Tubes A-F		mL

Analysis/Results:

1. Name the colors that you created.
2. How many mL of liquid were in each test tube at the **start** of this lab?
3. Why is it important to follow directions **exactly**?
4. What would have happened if your measurements were not correct?
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**!
6. How many mL of liquid did you have at the end of the lab? How many should you have? What are some reasons why you may have more or less than when you started?

Conclusion:

In the space below, write 2-3 sentences on what you have learned from this lab.
