Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Objectives:**

* to develop skills measuring chemicals with a graduated cylinder.
* to test precision and ability to follow directions.
* to practice lab safety procedures.

**Procedure:**

***Part 1:***

1. Label 6 test tubes in order: **A, B, C, D, E & F.**
2. Into test tube **A**, measure 25 mL of RED liquid.
3. Into test tube **C**, measure 17 mL of YELLOW liquid.
4. 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 and check with your teacher.
8. Measure the contents of each test tube and record how many mL in each test tube.

**Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_**

**Data:**

**Table 1: Test Tube Results**

|  |  |  |
| --- | --- | --- |
| **Test Tube**  | **Color of Liquid**  | **Amount of Liquid (mL)**  |
| **A**  | http://www.middleschoolscience.com/clearW.gif | http://www.middleschoolscience.com/clearW.gif |
| **B**  | http://www.middleschoolscience.com/clearW.gif | http://www.middleschoolscience.com/clearW.gif |
| **C**  | http://www.middleschoolscience.com/clearW.gif | http://www.middleschoolscience.com/clearW.gif |
| **D**  | http://www.middleschoolscience.com/clearW.gif | http://www.middleschoolscience.com/clearW.gif |
| **E**  | http://www.middleschoolscience.com/clearW.gif | http://www.middleschoolscience.com/clearW.gif |
| **F**  | http://www.middleschoolscience.com/clearW.gif | http://www.middleschoolscience.com/clearW.gif |
|    | **Total liquid Test Tubes A-F**  | **mL**  |

**Analysis/Results:**

1. Name the colors that you created. B. \_\_\_\_\_\_\_\_\_\_ D. \_\_\_\_\_\_\_\_\_\_ F. \_\_\_\_\_\_\_\_\_\_
2. How many mL of liquid were in each test tube at the start of this lab? \_\_\_\_\_\_\_\_\_\_\_\_\_
3. What would have happened if your measurements were not correct?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. How many mL of liquid did you have at the end of the lab?  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. How many should you have?  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. What are some reasons why you may have more or less than when you started?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_