Experiment 2: THE USE OF VOLUMETRIC GLASSWARE

Part I. The Graduated Cylinders [Green liquid in the common area]

<table>
<thead>
<tr>
<th>Size of Graduated Cylinder</th>
<th>Volume of Liquid contained in cylinder</th>
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Part II.

A. 25-mL Graduated Cylinder

Mass of empty 25-mL graduated cylinder

Mass of cylinder plus water

Mass of water in cylinder

Work:

Temperature of water

Density of water at this temperature (Appendix H)

Theoretical volume of water in cylinder

Work:
Experimental volume of water in cylinder

% Error

Work:

B. 50-mL Beaker

Mass of empty 50-mL beaker

Mass of beaker plus water

Mass of water in beaker

Work:

Temperature of water sample

Density of water at this temperature (Appendix H)

Theoretical volume of water in beaker

Work:

Experimental volume of water in beaker

% Error

Work:
C. Pipet

Mass of empty 150-mL beaker

Mass of beaker plus water

Mass of water transferred from pipet to beaker

Work:

Temperature of water

Density of water at this temperature (Appendix H)

Theoretical volume of water from pipet

Work:

Experimental volume of water from pipet

% Error

Work:

D. The Buret

Mass of empty 150-mL beaker

Initial water level in buret

Final water level in buret
Volume of water transferred from buret to beaker

Work:

Mass of beaker plus water

Mass of water transferred from buret to beaker

Work:

Temperature of water

Density of water at this temperature (Appendix H)

Theoretical volume of water

Work:

% Error

Work:

Based on your results, rank the 25-ml graduated cylinder, 50-ml beaker, pipet and buret from the most accurate to the least accurate.

1. (most accurate)

2.

3.

4. (least accurate)