

4. Density of liquid = 0.6578 g/cm^3
 $\frac{24.018}{36.5089} = 0.65786618 \dots$

■ 6

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Experiment 1 ■

25.00 mL

Calculations

Density = mass/volume
 Volume = mass/density

Percent error =
 $\frac{\text{observed value} - \text{True Value}}{\text{True Value}} \cdot 100$

$$S = \sqrt{\frac{\sum (x_i - \bar{x})^2}{n - 1}}$$

$0.997 + 0.997 + 0.997$

Cylinder

$(\text{mass of cylinder + water}) - (\text{mass of cylinder})$

0.997

Pipet

$-(0.026)^2 + (0.019)^2 + (0.014)^2$

$(\text{mass + stopper + water}) - (\text{mass of flask + stopper})$

Buret

Final buret - Initial buret = volume of water

0.99059

$(\text{mass + stopper + water}) - (\text{mass + stopper}) = \text{Mass of water}$

$0.30 \quad 0.59 \quad 0.42$