

Volume

1. Define the term volume.
2. The SI derived unit for volume is the _____, although the _____ is more useful in chemistry.
3. The metric base unit for liquid volume is the _____. For smaller quantities, it is more helpful to use the _____.
4. $1 \text{ cm}^3 = \text{_____ cc} = \text{_____ mL}$
5. A _____ object is one with regular dimensions. To determine the volume of such an object, measure its dimensions with a _____ and calculate its volume using the appropriate mathematical _____.
6. An _____ object is a solid with an irregular shape, which cannot be measured with a ruler. To determine the volume of such an object, the method known as _____ must be used.
7. Steps for the method referred to in #6 above:
 - a. Add water to a _____.
 - b. Measure and record the initial _____.
 - c. Add the object to the graduated cylinder. Measure and record the final _____.
 - d. Calculate the volume of the object: $V_{\text{object}} = \text{_____}$
8. The initial volume of water in a graduated cylinder is 27.25 mL. A 15-g sample of an unknown metal is placed in the graduated cylinder, and the final volume is measured to be 32.81 mL. The volume of the metal sample is _____ mL.
9. A rock causes the water level in a graduated cylinder to rise from 50.0 mL to 25.0 mL. What is the volume of the rock?