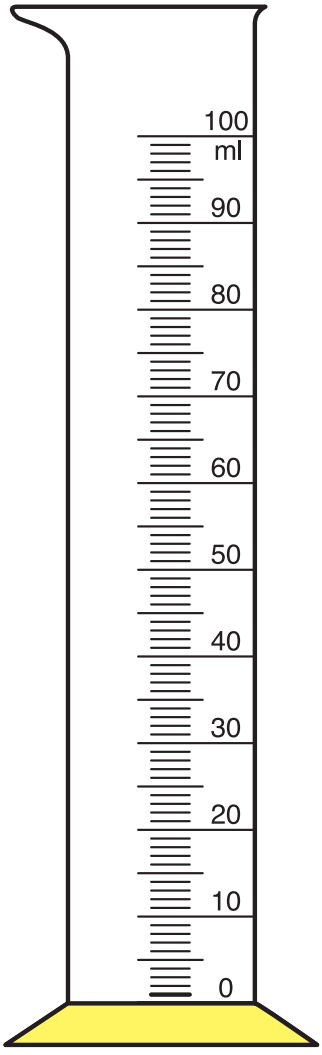
# LETTER HOME

## Exploring Volume with Addition and Subtraction

Dear Family Member:

Over 2000 years ago, the Greek scientist Archimedes discovered a clever way to find the volume of an object: sink the object in water and then measure the volume of water that is displaced by that object. This unit allows your child to follow in Archimedes' footsteps as he or she explores finding the volume of objects.

Your child will fill a graduated cylinder with a specific amount of water, place different objects in the water, and read the scale on the cylinder to determine the volume of the objects. This activity provides a real life context for practicing addition and subtraction of two-digit numbers. Students calculate the volume of the objects by subtracting the beginning scale reading from the reading after they submerge the objects. They also solve other problems about volume, again using addition and subtraction of two-digit numbers. You can reinforce these concepts by working with your child on a related homework assignment in which objects are immersed in a container of water.



Your child will use a graduated cylinder to measure volume in cubic centimeters.

Help your child at home by doing the following:

- **Interpreting Scales.** Create a problem for your child to solve using scales. Pour water and oil in a glass measuring cup. After the water and oil separate, ask your child to find the ounces of water, the ounces of oil, and the total amount of liquid in the cup.

### Math Facts and Mental Math

Students' fluency with the subtraction facts related to the addition facts in Group C will be assessed in this unit.

Group C: $9 - 2$, $9 - 3$, $9 - 6$, $9 - 7$, $10 - 1$, $10 - 2$, $10 - 3$, $10 - 4$, $10 - 5$, $10 - 6$, $10 - 7$, $10 - 8$, $10 - 9$, $11 - 2$, $11 - 3$, $11 - 4$, $11 - 5$, $11 - 6$, $11 - 7$, $11 - 8$, $11 - 9$

You can help your child review these facts using the flash cards the teacher sent home or by making a set of flash cards from index cards or scrap paper. Study the facts in small groups each night. As your child goes through the flash cards, put the cards in three stacks: Facts I Know Quickly, Facts I Can Figure Out, and Facts I Need to Learn.

For Facts I Need to Learn, work on strategies for figuring them out.

For Facts I Can Figure Out, use the flash cards to practice the facts for fluency.

For Facts I Know Quickly, help your child use strategies to solve problems like these using mental math: $90 - 20$ (practices $9 - 2$), $900 - 700$ (practices $9 - 7$).

Thank you for your interest in your child's math. Your continued efforts at home make a difference.

Sincerely,