

Student Guide

Fill It Up (SG p. 406)
Questions 1–5

1–5.* See Part 1 in the lesson for two possible strategies students may use to find the volume of a container. Figure 2 provides a sample drawing.

Homework (SG p. 407)
Questions 1–4

1. A. 504
B. 109
C. 20
2. A. No
B. Jar B
C. Jar C
D. Jar C; it only takes 6 Jar As to fill Jar B, but it takes 8 Jar As to fill Jar C.
3. A. 8 small containers; 20 cc more will be needed.
B. Sentences will vary.
Possible sentence: $8 \times 25 + 20 = 220$ cc
4. Explanations will vary. Possible response: Fill the container to the top with water. See how many 250 cc graduated cylinder I can fill. Pour the last bit of water into the cylinders and measure that. Add the number of 250 ccs with this last amount for the total.

Fill It Up

Lee Yah found two jars with unusual shapes.

Help Lee Yah make a plan to find out which jar has a greater volume.

Use a container, a graduated cylinder, an eye dropper, and some water. Pretend that the container is one of Lee Yah's jars. How can you use the graduated cylinder and the water to find the volume of the container?

1. Draw a picture of your plan on a piece of paper.

2. Follow your plan. What is the volume of the container?

There is more than one way to find the volume. Think of another way to use the graduated cylinder and the water to find the volume.

3. Draw a picture of a second plan on the other side of your paper.

4. Follow your plan. Did you get the same volume as before?

5. Which plan do you think gave you a more accurate volume? Why?

Use the *Fill It Up Lab* pages in the *Student Activity Book* to measure the volume of at least three containers. Later you will use this information to estimate and find the volume of a Mystery Jar.

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Homework

Complete the questions.

1. Find the median:
A. 505, 504, 504
B. 111, 109, 108, 110, 109
C. 21, 20, 19, 18, 21

2. Miguel has these three jars.
A. Do Jar B and Jar C have the same shape?
B. Which is taller, Jar B or Jar C?
C. Which is wider, Jar B or Jar C?
D. It takes 6 of Jar A to fill Jar B. It takes 8 of Jar A to fill Jar C. Which has a greater volume, Jar B or Jar C? Why do you think so?

3. Frank has a small container with a volume of 25 cc and a larger container with a volume of 220 cc.
A. How many full small containers of water can he pour into the larger one? How much more water does he need to fill the large container to the top?
B. Write a number sentence for your answer.

4. How would you use a graduated cylinder to find the volume of a jar that is larger than the cylinder? Use a drawing and words to explain. Explain your plan to a family member or a friend.

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*Answers and/or discussion are included in the lesson.