

At-Home Investigation

Find 3 large containers. How could you find out which one holds the most, without just pouring from one container into another, or by just looking?

Adult note: this requires use of a measuring object (e.g. coffee mug)

My plan: answer these questions

- What could I use to measure with? Draw some ideas and choose one.

- How will I make sure that I am measuring accurately?
What would happen if I didn't measure all the way to the top?

Carry out my plan: follow these steps and answer the questions

- Measure your three containers. How much does each one hold? Show what you did.

Apply your learning: follow this step and answer the question

- Compare the containers. Put them in order by how much they hold. Explain how you did it.

Order your collections from the smallest to the largest amount.

Write your number and draw the correct number of objects that you collected in the boxes below. The smallest amount should be at the top and the largest amount should be at the bottom.

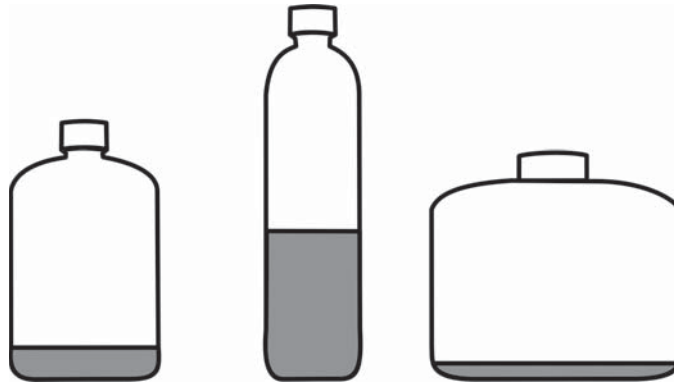
Number	Drawing

Problem 24: Volume

These containers each have 1 cup of water in them.

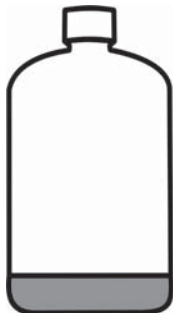
Which container will hold the most water?

 Draw a circle around the container that will hold the most water.

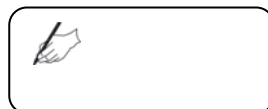




✓ Put a tick on the container that will hold the least amount of water.

 Why did you choose these 2 containers?



How many cups of water do you think this container will hold?



 or  Show how you worked it out.

Problem solving:

Teacher initials:

Date:

Student solved the problem with:

- Minimal help
- Some prompting
- Solved after explanation
- Did not work out a solution by themselves
- N/A – not a novel problem

Choose one of the other containers and work out how many cups of water it will hold.

 Tell a friend how you worked it out.

Peer Assessment

Name:



Investigating measuring instruments

What measuring objects do you have in your kitchen or bathroom to measure capacity (how much a container holds)?

Here are some ideas of what to look for:



You might also have special measuring cups or spoons for medicine.

Draw a picture of some measuring instruments that you find:

Try using one of them to measure how much a coffee cup will hold. Measure how much your bowl holds too. Find an object that holds an amount that is between the cup and the bowl.

Draw a picture to show what you did and write what you found:

Interleaved practice

Number:

1. Draw 26 counters arranged as a rectangle.

2. Three flowers were growing. Each had 8 petals. How many petals altogether? Draw them.

3. What number comes before 300?

Measurement/Geometry:

4. Draw the biggest mug or cup that you have in your house, next to the smallest one. How many small cups fit in the large one?

5. What time will it be when you go to bed? Draw the clock face.

6. Draw an object that has flat faces, but is not a cube or rectangular prism.

Chance/Data:

7. Do you have more cups and glasses or more cutlery in your kitchen? How many more? Write the number sentence and show your working.

Application question

Work with a partner for this activity.

Your task is to find the container that will most closely hold 1 litre of liquid.

You will need: a measuring jug, a variety of containers, water.

Place the containers in order from the one you think will hold the least amount of water to the one that will hold the most.




Draw the containers here. Draw a circle around the one that you think is closest to 1 litre.









Decide what you will do together to find out if you are right.

Use the strategy you decided on to test the containers.



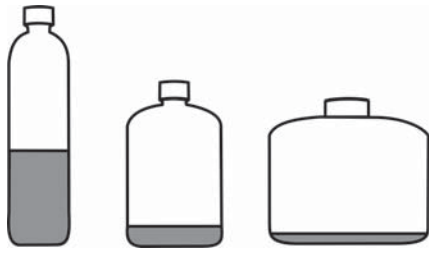
or  Fill in the table below.

Containers that hold less than 1 litre  or 	Containers that hold close to 1 litre  or 	Containers that hold more than 1 litre  or 





Draw a circle around the container that is the closest to 1 litre in volume.

Manipulation problem



These containers have been arranged in order from the one that will hold the least amount to the one that will hold the most.

Are there other ways that they could be put in order?



 or  Show at least one other way that they could be ordered.

Backwards question

Katy's bucket holds exactly 9 cups of sand.
She used 2 cups of sand to make each of these little castles.



If Katy puts all of the sand from the sand castles back into the bucket, will the bucket be full?

 or  Show how you worked it out.