

Chapter 17

Volumes

Exercise 1

1. Which of these household items holds most liquid when full ?



2. Put these items in order, starting with the one which holds the least.

(a) Mug, Kettle, Spoon, Bucket (b) Barrel of beer, Cola can, 2 litre bottle.

3. Put these items in order, starting with the one which takes up the most space.

(a) Loaf of bread, tin of beans, a garden pea, fridge.

(b) Bicycle, truck, car, skateboard, jumbo jet.



4. Shown is a recipe to make 6 scones.

(a) How much sugar is used ?

(b) Which piece of cutlery is used to measure out the butter ?

(c) What does the recipe use less of - salt or sugar ?

(d) If I have enough ingredients to make 18 scones, how much flour do I have ?

(e) I want to make 24 scones for a tea party.

List the total ingredients that I need.



3 cups of self-raising flour
2 teaspoons of sugar
4 tablespoons of butter
half cup of milk
half cup of water
half teaspoon salt



5. A punch bowl can hold 16 ladlefuls.

A ladle can hold 10 spoonfulls.

How many spoonfulls can the bowl hold ?



6. It takes 2 tankers three trips each to fill a large vat of milk.

Each tanker carries 50 barrels of milk.

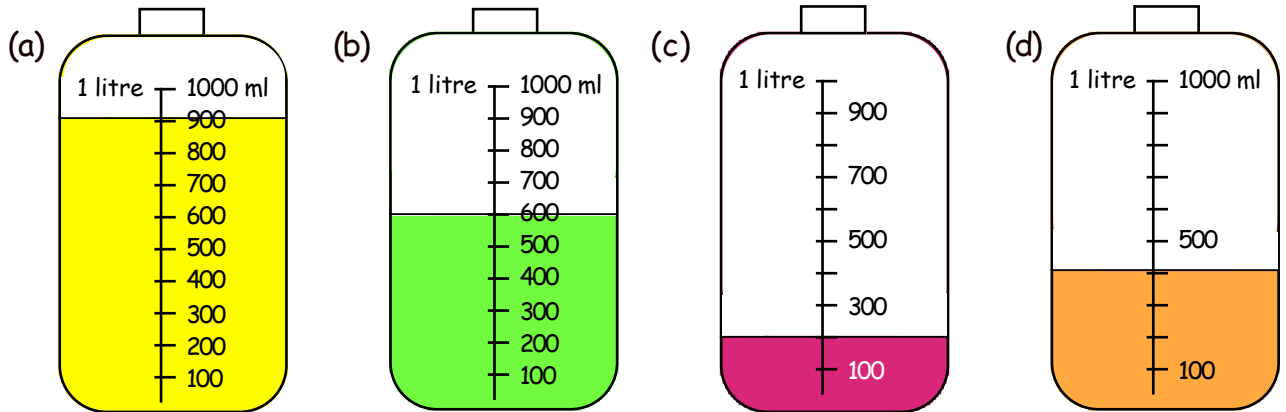
(a) How many barrels of milk does the vat hold ?

(b) If it takes 40 cows to fill a barrel, how many cows would it take to fill a vat ?



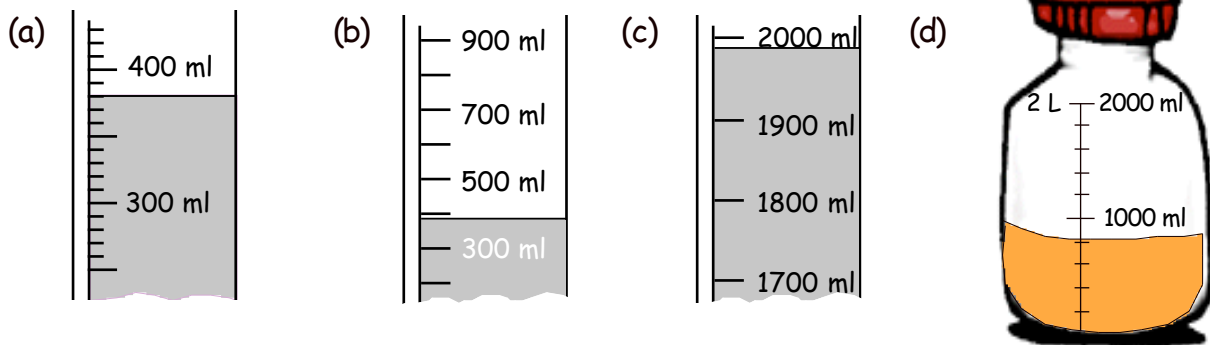
Exercise 2

- Copy and complete :- "One litre is equal to millilitres".
- What is the volume of coloured water, (in millilitres), in each bottle ?



- Which bottles contain less than half a litre ?
 - How many millilitres do I need to top-up the bottle in Q2(c) to one litre ?
 - If I pour all four bottles into a 2 litre jug would the water overflow ? (Explain your answer).

- Write each of these volumes to the nearest 100 ml :-



Exercise 3

- Change the following number of litres to millilitres :-

(a) 1 litres	(b) 2 litres	(c) 6 litres	(d) 10 litres
--------------	--------------	--------------	---------------
- Change from millilitres to litres :-

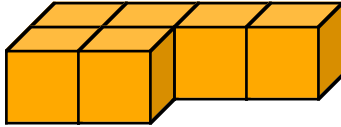
(e) 2·5 litres	(f) 4·7 litres	(g) 0·3 litres	(h) 0·05 litres
----------------	----------------	----------------	-----------------
- Change from millilitres to litres :-

(a) 3000 ml	(b) 9000 ml	(c) 20000 ml	(d) 50000 ml
-------------	-------------	--------------	--------------

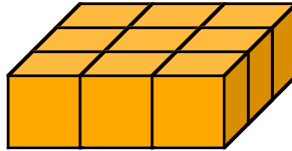
Exercise 4

State the volume of each of the following shapes, (in cm^3) :-

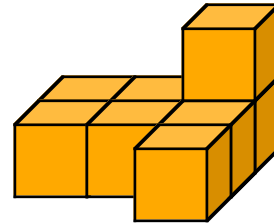
1.



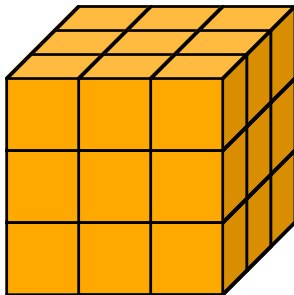
2.



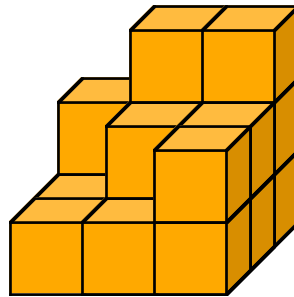
3.



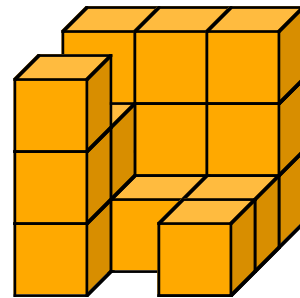
4.



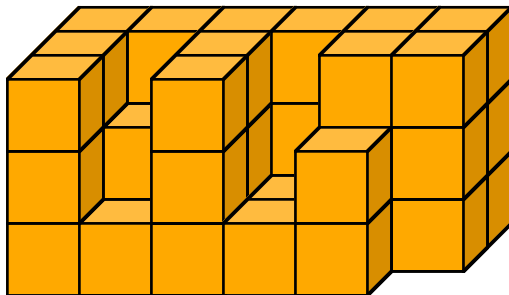
5.



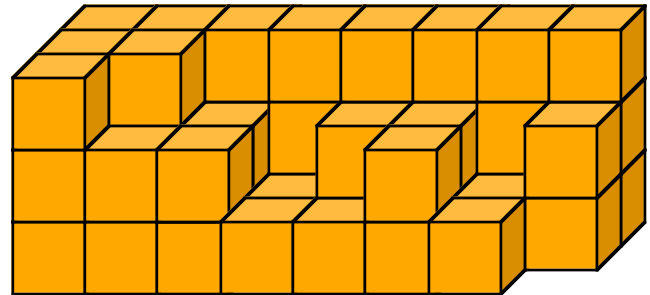
6.



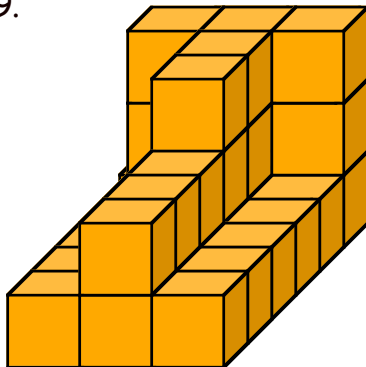
7.



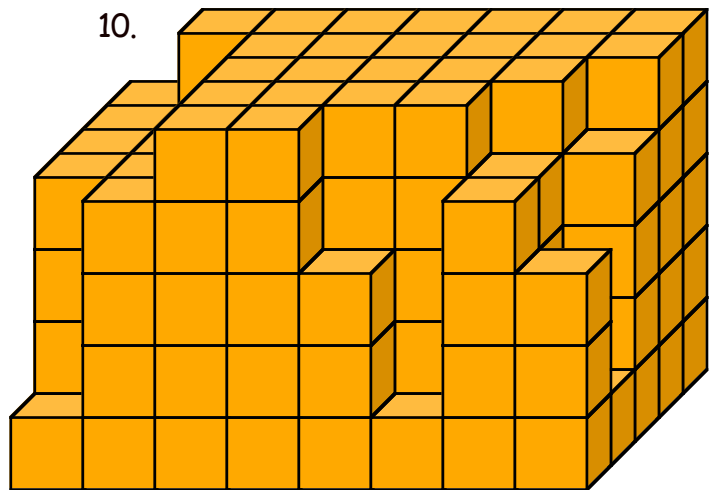
8.



9.



10.



11. How many **more** cubes would you need to be able to complete the cuboid shape from shape 10 ?

Revision Exercise



1. Put these shapes in order, starting with the one that has the greatest volume.

(a)



(b) Tin of soup, bottle of wine, medicine spoon, basin.

2. A recipe needs 50 grams of butter to make 4 fairy cakes.
How many grams of butter is need to make 12 fairy cakes ?



3. Ben has to take 2 tablets three times
a day for one week to cure his cough.
How many tablets will Ben take in the week ?

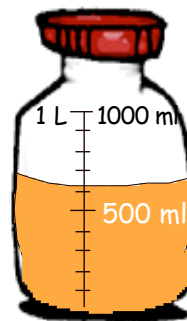


4. A large basin can hold 8 jugfulls.
A jugfull can hold 9 cupfuls.
A cup can hold 100 millilitres.

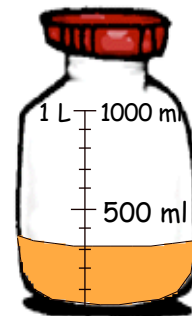
(a) How many millilitres does the jug hold ?
(b) How many litres does the basin hold ?

5. What is the volume of liquid
in each bottle ?

(a)



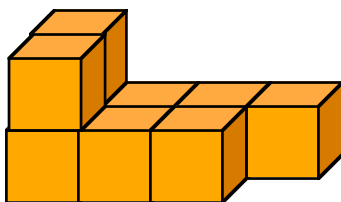
(b)



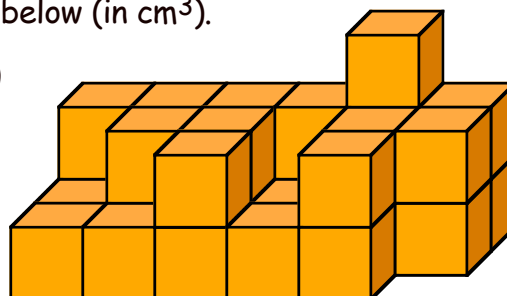
6. Look at the diagram in question 5 (a).
How much more liquid would you need to make it up to one litre.

7. Write down the volume of each shape below (in cm^3).

(a)



(b)



8. (a) Change to millilitres :- (i) 5 litres (ii) 10 litres (iii) 5.1 litres
(b) Change to litres :- (i) 3000 ml (ii) 50 000ml (iii) 400 ml