



G3.80 | SOLVING SIMPLE WORD PROBLEMS ON CAPACITY

Geometry & Measurement Concepts - NCERT Chapter 11: Jugs and Mugs

Students will be able to solve simple addition & subtraction word problems on capacity

40- 50 min

PRE REQUISITES:

G3.78 Know to estimate, verify, & compare in litres

G3.79 Know the principle of conservation of volume

TLM



Slips with volumes 1L, 2L, 3L, 5L, 10L, 15L, 17L, 18L, 19L written on them

MISCONCEPTIONS

None

KEY VOCABULARY

None

PLAY



Fill up the oil tank

○ Place 10 slips (1L, 2L, 3L, 5L, 10L, 15L, 17L, 18L, 19L) & a plastic cup on the table

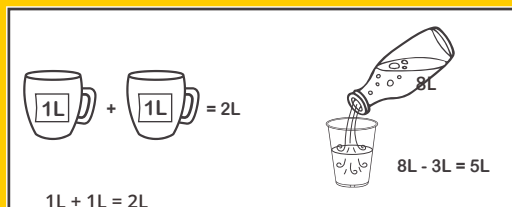
○ Tell the students to imagine the cup to be an oil tank which can hold 20L of oil

○ Put a 5L slip in the cup & tell that the volume of oil inside the tank is now 5L

○ Call a student & ask them to put more no. slips into the cup so that there is a total of 20L in it

○ Repeat with other students by varying the no.s

PROCESS



Demonstrate addition of volume using sand and stones

○ Take 2 plastic cups & fill them with sand & stone. Empty the cups into a large tumbler

○ Explain that the tumbler has as much sand as there was in the two plastic cups put together

○ Draw 2 cups on the blackboard. Tell the students that each cup has 1L of soup

○ Tell if the soup from both the cups is transferred into a big tumbler, it will have 1L+1L=2L of soup

○ Write 1L + 1L = 2L on the black board. Explain that volume can be added or subtracted like other collections

○ Draw a big bottle & tell it has 8 L of water. Tell if 3 litres of water is poured out 5L water remains. Write 8L-3L = 5L

QUESTION

If there is 20L of water in a bucket & I use 10L to take a bath, how much will be left in the bucket?

PRACTICE



Draw the question on the blackboard & ask the students to solve

○ Help the students solve question 3 from the worksheet. Ask the students to look at the images & add the volumes



○ Help the students solve question 4 from the worksheet. Ask the students if 2 litres milk is poured into a vessel containing 3 litres milk. How much milk is in the container in all?

○ Emphasize that volume must be written in litres (or L in short)

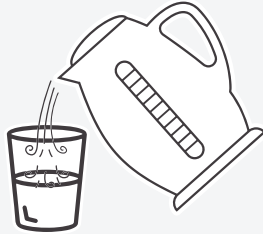
○ Encourage students to write 4L + 2L instead of 4+2



- ① SOLVED EXAMPLE : How much tea will be left in the kettle after pouring out 1L



3 Litre



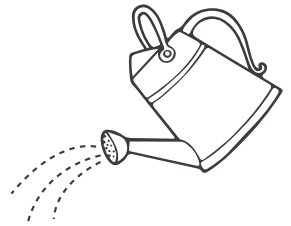
1 Litre

$$3L - 1L = 2L$$

- ② How much water will be left in can the after pouring out 5L



9 Litre



5 Litre

- ③ Look at the images & add the volumes.



4L



1L

= _____



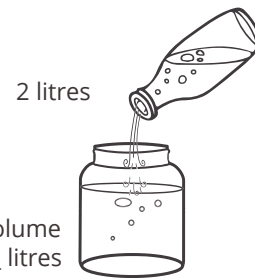
4L



10L

= _____

- ④ if 2 litres milk is poured into a vessel containing 3 litres milk. How much milk is in the container in all



2 litres

Total volume
= _____ litres

- ⑤ Fill in the blanks:

How much water can go inside the vessel in all		Volume of liquid inside it	How much more liquid to fill it
10L		7L	_____
80L		40L	_____
20L		20L	_____

- ⑥ Answer the questions based on the image below



Meena's jar
5L



hameena's jar
5L



Bunty's jar
1L

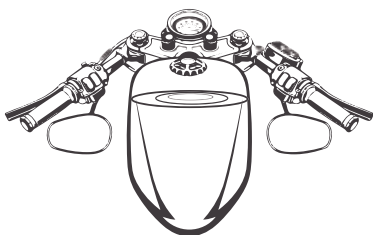


Vinitha's jar
2L

- a. What is the total volume of water in all four jars?

- b. How much more water is there in Meena's jar than Vinitha's jar ? _____

- ⑦ 5 litres petrol is put in a scooter. It needs _____L of petrol more to fill its 10L tank completely



- ⑧ Find out from your elders at home:

- Total amount of cooking oil used in a month
- Total amount of milk used everyday
- Total amount of water used in a day

How much more water than milk is used every day?