

Volume – Addition and Subtraction

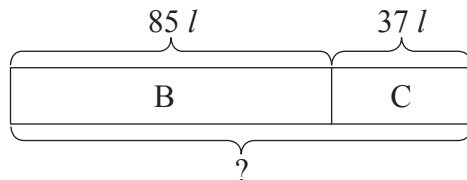
Part-Whole Model – Addition

Example

The volume of water in Tank A is 52 l .
The volume of water in Tank B is 85 l .
The volume of water in Tank C is 37 l .
What is the total volume of water in the tanks with the most and the least amount of water?

Solution 1:

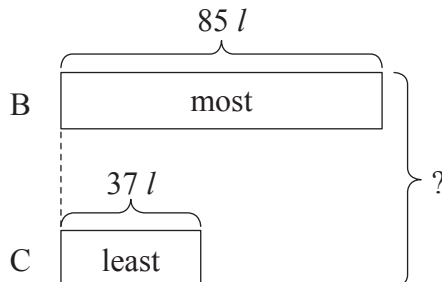
Tank A is 52 l .
Tank B is 85 l (most amount of water).
Tank C is 37 l (least amount of water).



$$85\text{ l} + 37\text{ l} = 122\text{ l}$$

The total volume of water is 122 l .

Solution 2:



$$85\text{ l} + 37\text{ l} = 122\text{ l}$$

The total volume of water is 122 l .

Working

$$\begin{array}{r} 85 \\ + 37 \\ \hline 122 \end{array}$$

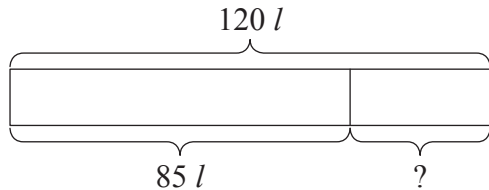
$$\begin{array}{r} 85 \\ + 37 \\ \hline 122 \end{array}$$

Part-Whole Model – Subtraction

Example

A container can hold 120 l of water.
If it needs another 85 l of water to be filled up completely, how much water is in the container now?

Solution:



$$120 \text{ l} - 85 \text{ l} = 35 \text{ l}$$

35 l of water is in the container now.

Working

$$\begin{array}{r} 0 \quad 11 \\ \cancel{1} \cancel{2} \quad 0 \\ - \quad 85 \\ \hline 35 \end{array}$$

Adapted:

Conquer Model Drawing for Lower Primary Levels

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Solve the following word problems using models.

Working

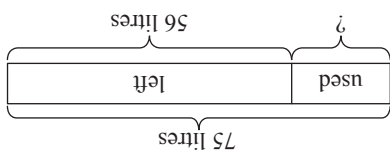
- Mr Tan bought 21 litres of cooking oil on Saturday and 15 litres of cooking oil on Sunday.
How many litres of cooking oil did Mr Tan buy altogether?

- Mr Chan's car had 75 litres of petrol.
After driving for 3 hours, he had 56 litres of petrol left.
How many litres of petrol did he use?

Solutions:



Mr Tan bought 21 litres + 15 litres = 36 litres of cooking oil altogether.



He used 75 litres - 56 litres = 19 litres of petrol.

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