

Capacity Word Problems

A fish tank is in the shape of a rectangular prism.
What is the capacity of the tank in litres?

Convert to the unit indicated.

$$V = lwh$$

$$= 100 \times 60 \times 92$$

$$= 552000\text{cm}^3$$

$$552000\text{cm}^3 = 552 \text{ L}$$

$$552000 \div 1000$$

$$1000\text{cm}^3 = 1\text{L}$$

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Description

In this activity students calculate the capacity or volume of various objects by applying the formula.

Teaching Hints

Use the visualisation to show the formula to convert to the unit indicated. Discuss the difference between volume and capacity. Volume is the amount of space that an object takes up while capacity is the maximum amount that a container can carry.

Activities

A block of ice has a capacity of 20mL.
What is the volume of the ice block?

Answer = 20000 mm³ ✓

Easier Example

A swimming pool is in the shape of rectangular prism.
What is the capacity of the pool in kilolitres?

Answer = 330 kL ✓

Medium Example

A fish tank is in the shape of a rectangular prism.
What is the capacity of the tank in litres?

Answer = 484.5 L ✓

Harder Example