# The volume of boxes

## Annotation

Molly knows that when she measures volume, she is measuring the amount of space that an object takes up. She understands that measurements of volume can be derived from measurements of length because one edge of 1 cubic centimetre is equal to 1 centimetre of length. To calculate the volume of a box, she measures the dimensions of length, width and height and records her answer in cubic centimetres.

## Problem: The volume of boxes

The teacher gives the student a rectangular box that has whole-number dimensions of length, width and height and asks the student to measure the volume of the box.

## Student Response

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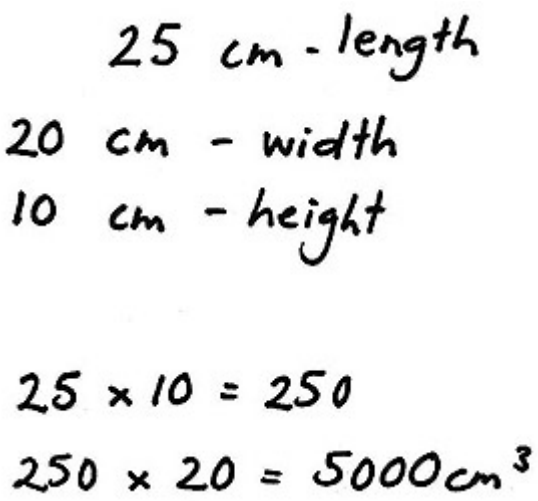
|---|---|
| Teacher: | What are you measuring when you measure volume? |
| Molly: | The space that the box takes up. |
| Teacher: | What unit of measure do you use to measure volume? |
| Molly: | Cubic centimetres. They’re 1 centimetre long by 1 centimetre wide by 1 centimetre deep. |

The teacher gives Molly a 30-centimetre ruler and asks her to calculate the volume of the box.




Molly measures the dimensions of length, width and height and records each measurement.

Molly: Its volume is 5000 cubic centimetres.