## Use the formula

length $\times$ width $\times$ height
to calculate the volume of a cuboid.

1) Calculate the volume for each of these cuboids.

c) Not drawn to scale

2) Calculate the missing values in each of these cuboids.
a) Not drawn to scale

b) Not drawn to scale
$\ldots 4 \times 6=120 \mathrm{~cm}^{3}$

c) Not drawn to scale

$8 \times$ $\qquad$ $\times 2=112 \mathrm{~cm}^{3}$

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## Use the formula

length $\times$ width $\times$ height
to calculate the volume of a cuboid.

1) Two children are discussing the best way to find the volume of this cuboid.


Amrit says - To work out the volume I made sure to use the formula length $\times$ width $\times$ height in order.
$4 \times 6=24$
$24 \times 5=120 \mathrm{~cm}^{3}$

Noah says - I just multiplied the measurements in the order I found the easiest and quickest to work out.
$4 \times 5=20$
Noah
$20 \times 6=120 \mathrm{~cm}^{3}$

Will Noah's method always work? Explain your answer fully.
2) Ada measures the sides of this cuboid in order to find the volume.


All of the sides are even numbers. I calculated that the volume of my shape was $17 \mathrm{~cm}^{3}$.


I don't think Ada's answer can be correct if all the sides were even number.

Chelsea

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I don't think Ada's answer can be correct if all the sides were even number.


Do you agree with Chelsea? Explain your reasoning.

Use the formula
length $\times$ width $\times$ height
to calculate the volume of a cuboid.

1) A cuboid has sides that are whole numbers. No side is smaller than 3 cm or longer than 10 cm . It has a volume between $70 \mathrm{~cm}^{3}$ and $75 \mathrm{~cm}^{3}$


Find three sets of different dimensions for the cuboid.
(Rearranging the order of the measurements is not accepted as a different answer.)
length $=\mathrm{cm}$
width $=\quad \mathrm{cm}$
height $=\quad \mathrm{cm}$
volume $=\quad \mathrm{cm}^{3}$
2) When added together, two different cuboids have a volume equal to $120 \mathrm{~cm}^{3}$.
Give the possible dimensions of these cuboids.


Find 5 different answers.
(Rearranging the order of the measurements is not accepted as a different answer.)

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