



Functional Skills and GCSE Foundation

Edexcel

Unit 2: Measure, shape and space Lesson 4 - Volume of cubes and cuboids

FS1

FS2

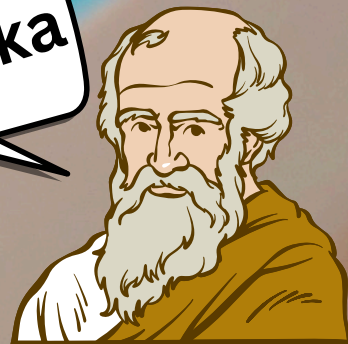
GCSE

iGCSE

Bring to join in:

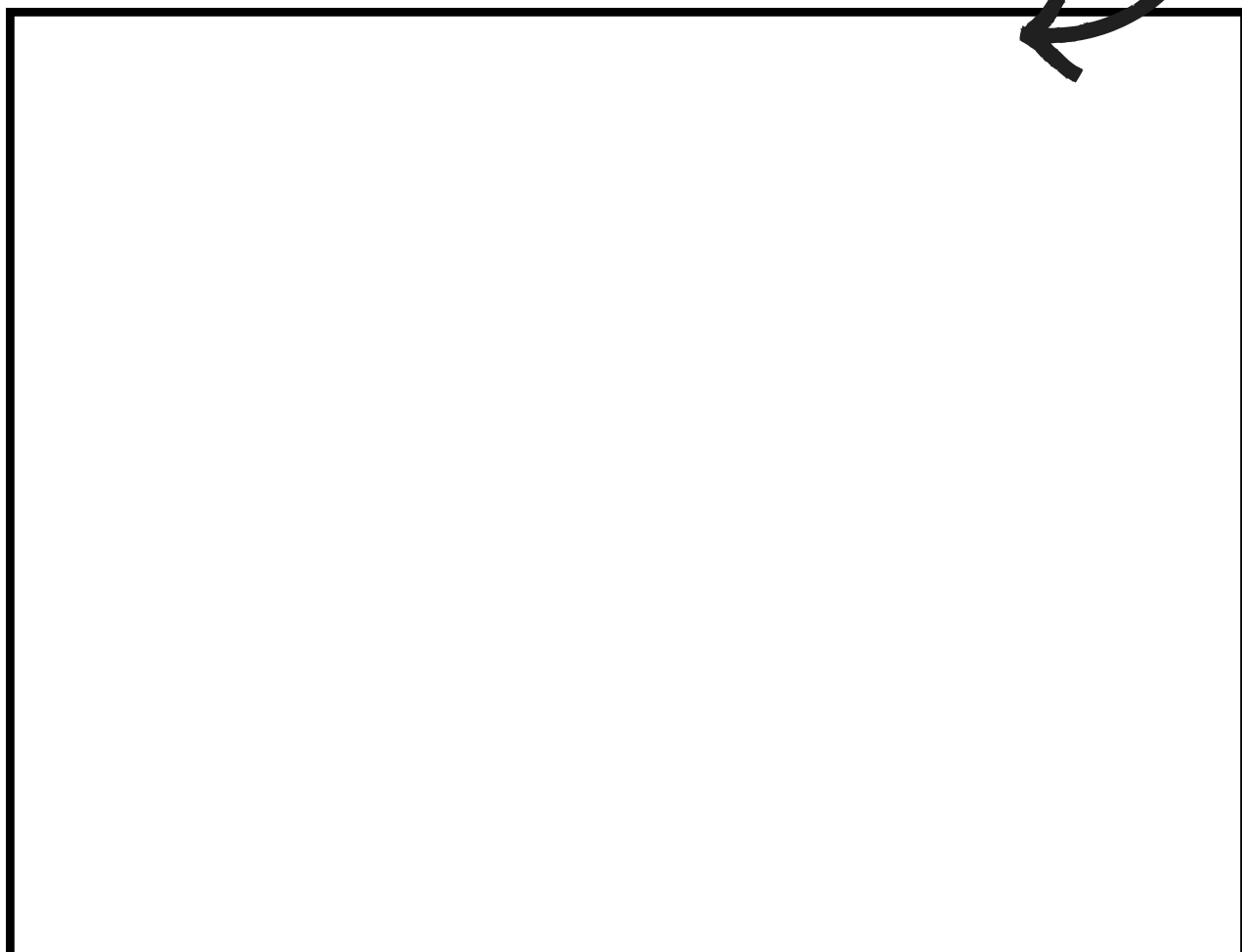
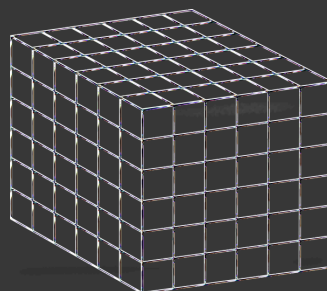
a bowl full to the top with water, a ball that will fit in the bowl, 2 different sized glasses, more water, a measuring jug, a calculator, a tray or something to catch water that will definitely overflow

Eureka

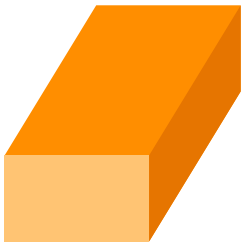


Start thinking:

Can you make a larger cube
using 12 identical smaller
cubes?



Cuboid

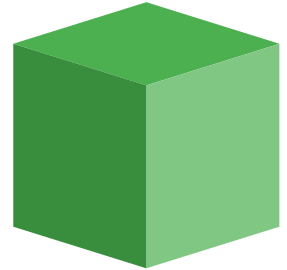


Similarities

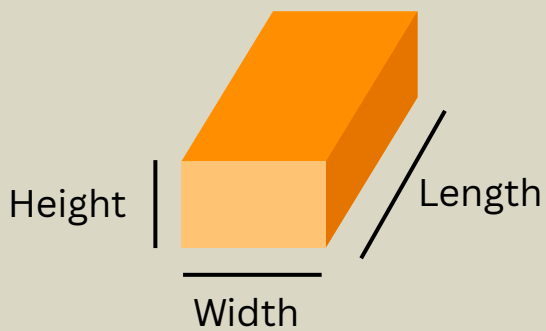
Differences

FS1	✓
FS2	✓
GCSE	✓
iGCSE	✓

Cube

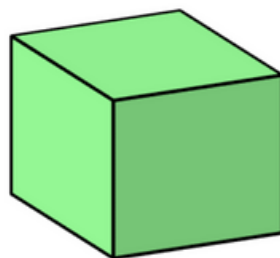
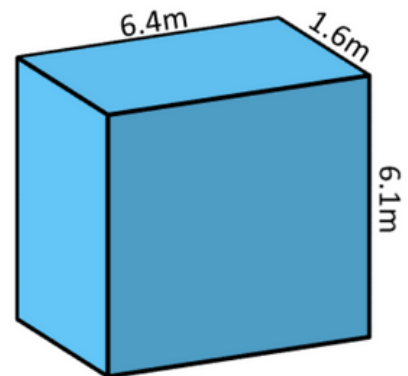
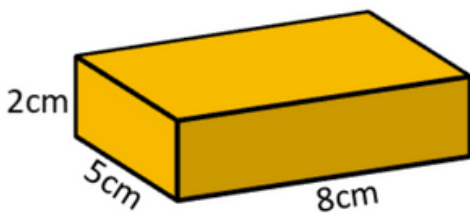


Volume of a cuboid:



length x width x height

Find the volume:



Cube with edges
5cm long

Find the missing information

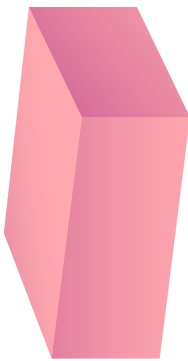


Length = 10cm

Width = 5cm

Height = 3cm

Volume =



Length = 5cm

Width = 3cm

Height =

Volume = 30 cm^3

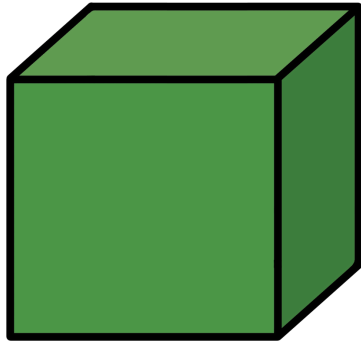


Length = 4cm

Width =

Height = 7cm

Volume = 112 cm^3



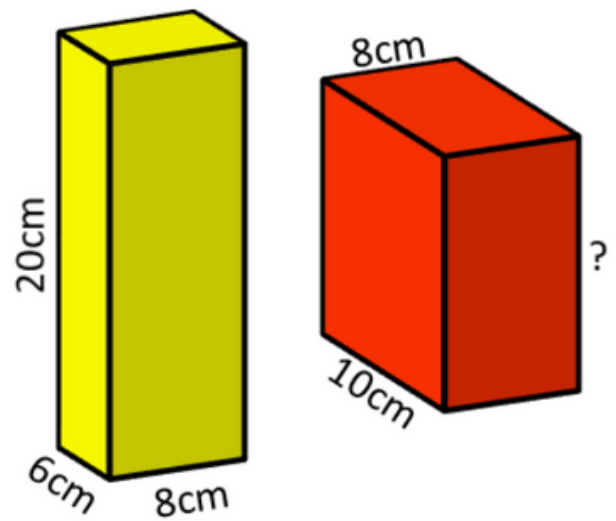
Length =

Width =

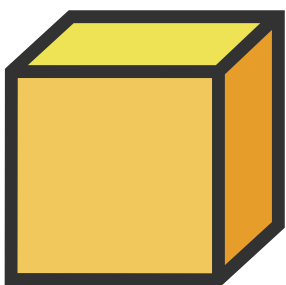
Height =

Volume = 27cm^3

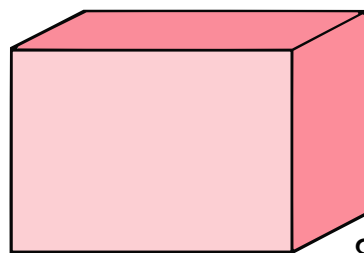
Same volume



Transum.org



? cm



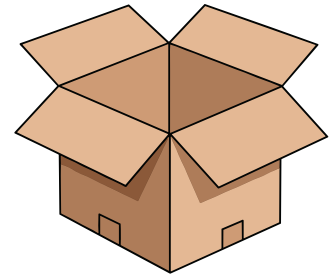
3 cm

8 cm

9 cm

Problem

My van is 3m x 1.6m x 2m



My boxes are
60cm x 40cm x 40cm

What is the maximum number of
boxes I can fit in my van?

Have you
tried drawing
it?

Quiz





Practice questions

At home:

Corbett maths - Volume practice

<https://corbettmaths.com/wp-content/uploads/2013/02/volume-of-a-cuboid-pdf1.pdf>

Answers:

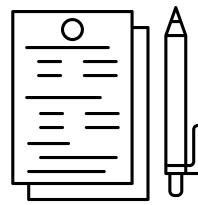
<https://corbettmaths.com/wp-content/uploads/2019/08/Volume-of-cuboid.pdf>

Video:

<https://corbettmaths.com/2012/08/09/volume-of-cuboids-and-cubes/>

Transum - Investigation with A4 paper

<https://www.transum.org/Software/Investigations/Maxvoltray.asp>



Exam questions

At home:

Maths Genie exam style questions:

**This is a range of questions on volume. The ones on
cubes and cuboids are: Q5 - Q12**

<https://www.mathsgenie.co.uk/resources/4-volume-of-a-prism-ws.pdf>

Answers:

<https://www.mathsgenie.co.uk/resources/4-volume-of-a-prismans.pdf>