

LAV (Length, Area and Volume)

Week 13

Lesson Time : 15-20 Minutes

Course : Higher

Grade : 7

Back to Basics

Core

Let's Do It!

GCSE Revision Video 68

- **Prior Checklist:** A pack of A5/A6 revision cards.

A pen.

- **Our Video Structure:**

Back to Basics: Quick re-cap.

Core: *Create* your own revision cards with exam style questions.

Let's Do It!: *Apply* your revision cards to another set of exam style questions.

Instructions: Print out this worksheet and watch the revision video simultaneously.

Pause and Play the video unlimited times to review your work and write the answers in the blank spaces. Once you have written your answers, check these with the tutorial answers, as explained in the video.

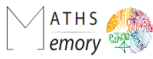
Create your OWN revision cards when prompted on the worksheet (Back to Basic and Core sections).

Apply your OWN revision cards (Let's Do It! section).

Self Assess yourself (Out of 10) on your revision planner after you have completed the revision video.

WATCH this revision video and **MANY** others on our **FULL** courses at www.mathsmemory.co.uk

Let's get started and create our Master revision card with this suggested template.



Maths Memory

Learn:


- Calculate Area Proportions
- Calculate Volume Proportions

Topic: LAV


Date/week: _____

Example(s):


Step 3




Step 2



Step 1

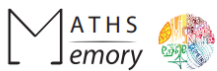




GRADE

7/8

Core- Create your revision cards with these exam style questions



Core 1

Topic: **LAV**

Question 1



These two triangular prisms are mathematically similar.
The surface area of A is 50 cm^2 .

a) Find the surface area of B.

b) The volume of B is 400 cm^3 . Find the volume of A.

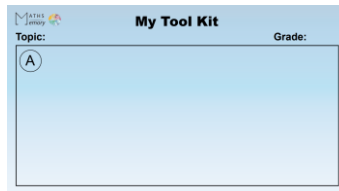
Grade

7 (3 Marks)



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Let's get our revision card and create Section A. Look at video for guidance.



Core 2

Topic: **LAV**

Question 2

Solid A and Solid B are mathematically similar.

The ratio of the surface area of solid A to the surface area to solid B is 4:25.

The volume of B is 1250cm^3 .

Show that the volume of A is 80cm^3 .

Grade

7 (3 Marks)



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Question 3

Three solid shapes A,B and C are mathematically similar.

The surface area of shape B is 9 cm^2 . The surface area of shape C is 16cm^2 .

The ratio of the volume of shape A to the volume of shape B is 64:125.

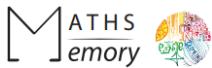
Work out the ratio of the length of shape A to the length of shape C.

Give your answer in terms $x:y$ where x and y are integers.

Grade

8 (4 Marks)

Let's Do It! - Apply your revision cards to another set of exam style questions



Let's Do It !

Topic: LAV

Question 1

Cone A and Cone B are mathematically similar.
The ratio of the volume of cone A to the volume of cone B is 8:27.
The surface area of cone B is $297\pi\text{cm}^2$.
Show that the surface area of cone A is $132\pi\text{cm}^2$.

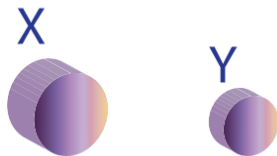
Grade
7 (4 Marks)



Let's Do It !

Topic: LAV

Question 2



X and Y are two mathematically similar shapes. The surface area of X is $320\pi\text{cm}^2$.
The surface area of Y is $180\pi\text{cm}^2$. The mass of X is 1280 grams.

a) Calculate the mass of Y (3 significant figures)

Grade
7 (4 Marks)

Congratulations. You have completed this topic.

Now go back to your revision planner and rate yourself out of 10.



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