

What's Going On?

Checking In

Minds on

Area and Volume Investigation

Action!

Perimeter, Area and Volume

Consolidation

Perimeter and Area of Basic Shapes

Learning Goal - I will be able to convert areas and volumes between different systems of measurement.

Checking In

Get your little books!

****COPY THE QUESTION AND SHOW YOUR WORK****

There are 0.304 m in 1 foot.

a) How many metres are in 20 feet?

$$\frac{m}{ft} = \frac{m}{ft} \Rightarrow \frac{20 \times 0.304}{1} = \frac{x \times 20}{20}$$

$$x = 6.08m$$

b) How many feet are in 20 metres?

$$\frac{ft}{m} = \frac{ft}{m}$$

Minds on

Measurement Sort

	Length	Area	Volume
Imperial System	ft in yd	ft ² in ² yd ²	yd ³ in ³ ft ³
Metric System	mm m cm	m ² mm ² cm ²	m ³ mm ³ cm ³

mm - millimetre

in - inch

cm - centimetre

ft - foot

m - metre

yd - yard

Minds on

Estimating and iPad Investigation

1. Make your initial estimates of area and volume in the first estimate box for each set of units.
2. In our shared Google drive folder (MFM 2P), open the file **2P 7.2.1 - Investigation.gsp** in SketchExplorer.

Explore the file by showing the 2D (square) and 3D (cube) objects. After playing with the file, make new estimates of area and volume in the second estimate box for each set of units.

Action!

Lengths, Areas and Volumes

$$1 \text{ cm} = 10 \text{ mm}$$



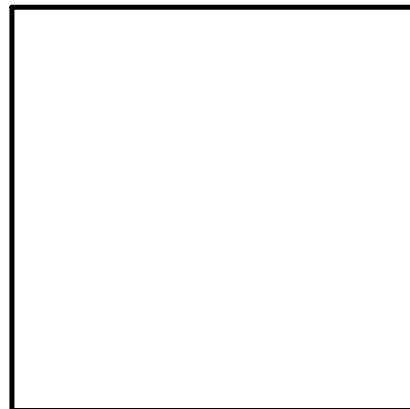
$$1 \text{ cm}^2 = \underline{100} \text{ mm}^2$$

(10x10) or 10^2

To convert areas

Square

the measurements!



Action!

Lengths, Areas and Volumes

$$1 \text{ cm} = 10 \text{ mm}$$



$$(10 \times 10 \times 10)$$

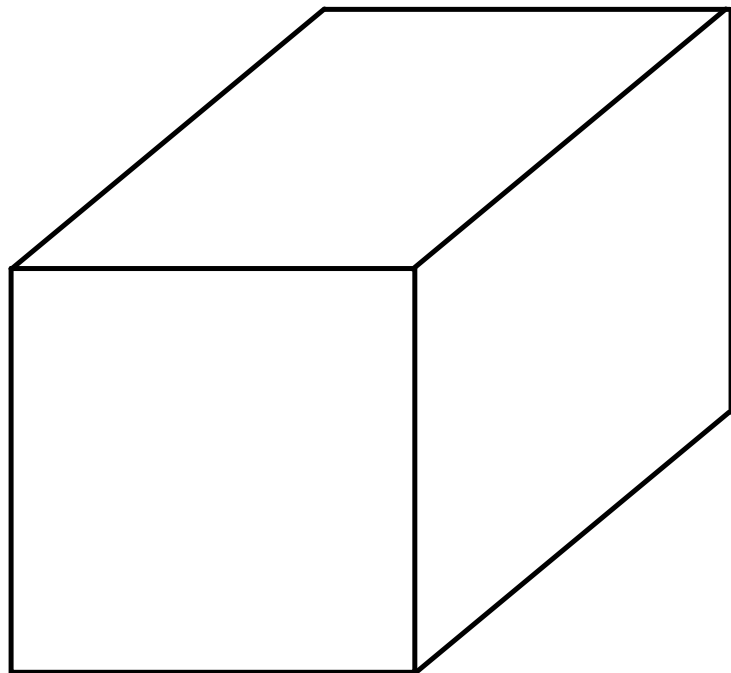
or 10^3

$$1 \text{ cm}^3 = \underline{1,000} \text{ mm}^3$$

To convert volumes

Cybe

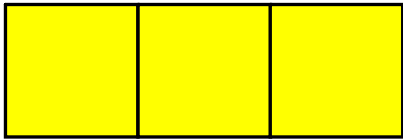
the measurements!



Action!

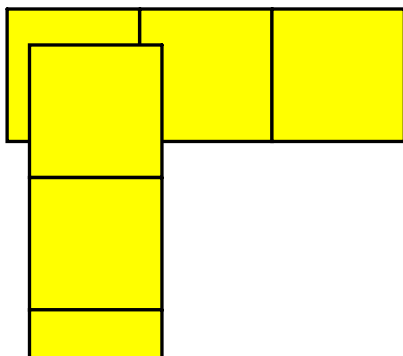
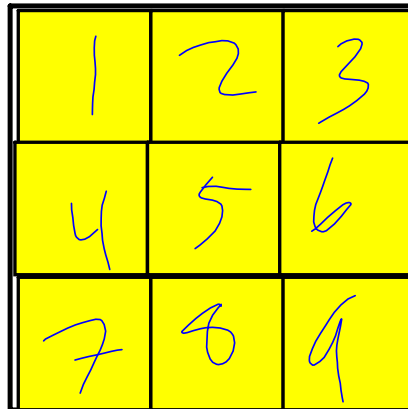
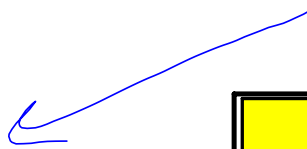
Lengths, Areas and Volumes

1 yd = 3 ft



1 yd² = 9 ft²
(3 × 3)

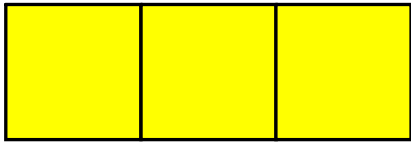
3²



Action!

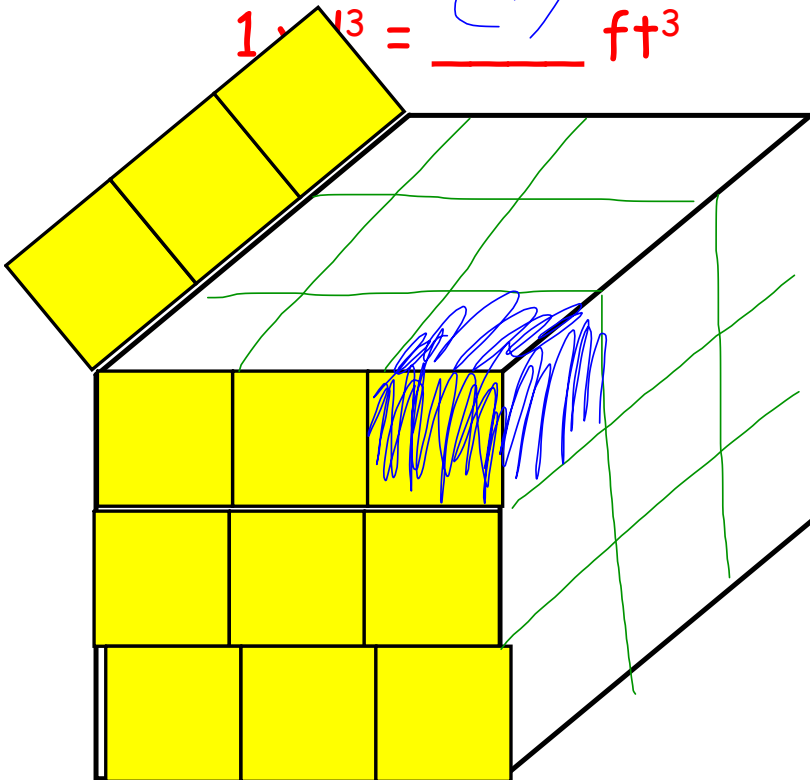
Lengths, Areas and Volumes

$$1 \text{ yd} = 3 \text{ ft}$$



$3 \times 3 \times 3$
or
 3^3

$$1 \text{ yd}^3 = \underline{27} \text{ ft}^3$$



Consolidation

Time to Work on Assignment