

Lesson 1

Topic: length, mass and capacity

Sub-Topic: Length

Content: Estimating and measuring using m/cm

Estimate and measure the following

Item	Estimate in cm	Actual in cm	Actual in m
Length of an exercise book			
Length of a new pencil			
Length of a table			
Length of the chalkboard			
Height of a pupil			

Lesson 2:

Topic: length, mass and capacity

Subtopic: Conversion of units of length.

Content: Converting big units to smaller units

Stating relationship between the units of length.

Km	Hm	Dm	M	dm	cm	mm
1	0	0	0	0	0	0
	1	0	0	0	0	0
		1	0	0	0	0
			1	0	0	0
				1	0	0
					1	0

Examples:

a) Change 6 cm to mm.

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

$$6 \text{ cm} = (10 \times 6) \text{ mm} \\ = 60 \text{ mm.}$$

b) $4\frac{1}{2}$ cm

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

$$\frac{9}{2} \text{ cm} = (10 \times \frac{9}{2}) \text{ mm} \\ = 5 \times 9 \text{ mm} \\ = 45 \text{ mm.}$$

Evaluation activity

Change the following as instructed

1. 5 km to metres
2. 3 Hm to metres
3. 4.5 Dm to metres
4. 5m to dm
5. $8\frac{1}{2}$ m to cm
6. 7m to mm
7. 10dm to cm
8. 7dm to mm
9. 9cm to mm
10. 6km to Hm

Lesson 3

Subtopic: Conversion of units of length.

Content: Converting smaller units to bigger units.

Examples

a) 450 milli metres to centimetres

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

$$1 \text{ mm} = (\frac{1}{10}) \text{ cm}$$

$$450 \text{ mm} = (\frac{1}{10} \times 450) \text{ cm} \\ = 45 \text{ cm}$$

b) 32 mm

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

$$1 \text{ mm} = (\frac{1}{10}) \text{ cm}$$

c) 300 cm

$$100 \text{ cm} = 1 \text{ m}$$

$$1 \text{ cm} = (\frac{1}{100}) \text{ m}$$

$$300 \text{ cm} = (\frac{1}{100} \times 300) \text{ m} \\ = 3 \text{ m}$$

d). 460 cm

$$100 \text{ cm} = 1 \text{ m}$$

$$1 \text{ cm} = \frac{1}{100}$$

$$460 \text{ cm} = \frac{1}{100} \times 460 \\ = 4.6 \text{ m}$$

$$= \frac{32}{10}$$

$$= 3.2 \text{ cm}$$

Evaluation activity

Evaluation activity

Change the following as instructed

(f) 5m to cm

(g) 30 mm to cm

(h) 45m to mm

(a) 50km to m

(b) 300 Hm to Dm

(c) 400m to cm

(d) 300m to mm

(e) 500mm to cm

Lesson 4: Comparing units of lengths using $<$, $>$ or $=$

Identifying the relationship between units of length.

Changing units of lengths to similar units.

Using $<$, $>$, or $=$ to complete the given statements correctly.

Examples

$$2 \text{ m} \quad \underline{\hspace{1cm}} \quad 100 \text{ cm}$$

$$1 \text{ m} = 100 \text{ cm}$$

$$2 \text{ m} = 2 \times 100$$

$$= 200 \text{ cm}$$

$$2 \text{ m} > 100 \text{ cm}$$

Evaluation activity

a) 3 mm 50 cm

b) 1/m 50 cm

c) 2.3 km 230 m

d) 0.2 m 200 mm

e) 5.5 m 500cm

f) 1.5km 200 m

g) 300 m 300 mm

LESSON 5 ADDITION AND SUBTRACTION OF UNITS.

Examples:

$$\begin{array}{r} \text{Kg} \quad \text{g} \\ 1. \quad 3 \quad \overset{1}{6} \overset{1}{7} 9 \\ + \quad 2 \quad 239 \\ \hline 5 \quad 918 \end{array}$$

$$\begin{array}{r} \text{Kg} \quad \text{g} \\ 2. \quad 45 \quad 980 \\ - \quad 10 \quad 450 \\ \hline 35 \quad 530 \end{array}$$

Evaluation activity

- a) Add $34\text{kg} + 350\text{g}$
- b) Add $16\text{kg} + 230\text{g}$
- c) Add $256\text{kg} + 370\text{g}$
- d) Subtract $12\text{kg} - 340\text{g}$
- e) Subtract $19\text{kg} - 450\text{g}$
- f) Subtract $230\text{kg} - 390\text{g}$
- g) Subtract $210\text{kg} - 220\text{g}$

LESSON 6: Finding perimeter

1

T/ learning activities

Defining perimeter.

Recognizing the shapes given.

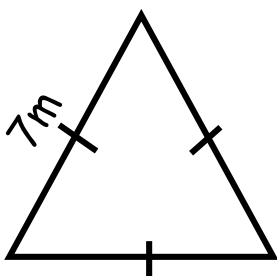
Identifying the formula for that gives the perimeter of different figures.

Finding perimeter

Perimeter is the total distance round a given shape.

Perimeter = sum of all sides

Examples 1: Find the perimeter of the figure below

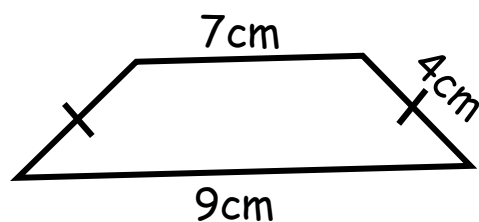


Perimeter = sum of all sides

Perimeter = $7\text{m} + 7\text{m} + 7\text{m}$

Perimeter = 21m

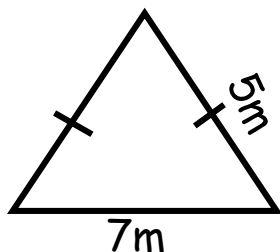
Example: Find the perimeter of the figures below



Perimeter = sum of all sides

$$\text{Perimeter} = 9\text{cm} + 4\text{cm} + 7\text{cm} + 4\text{cm}$$

$$\text{Perimeter} = 24\text{cm}$$



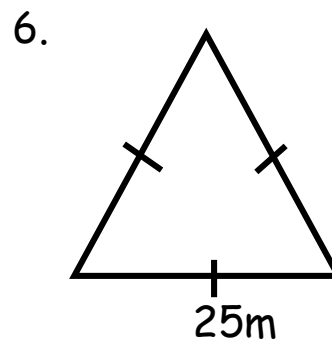
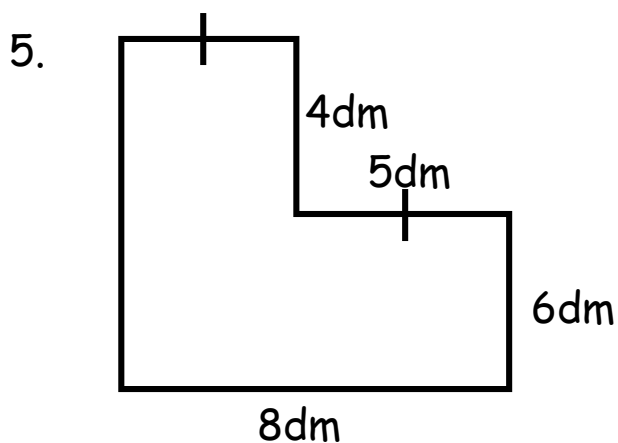
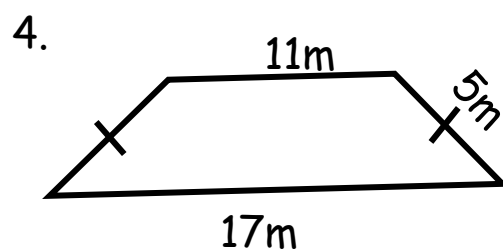
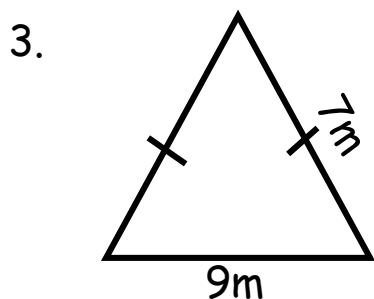
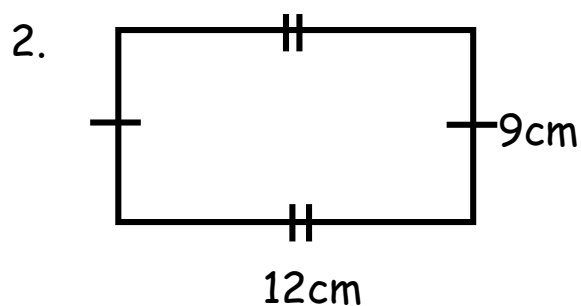
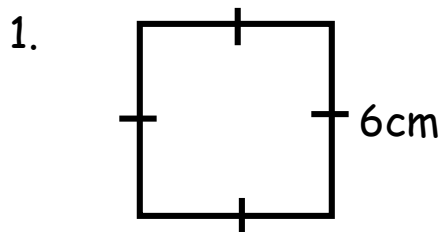
Perimeter = sum of all sides

$$\text{Perimeter} = 7\text{m} + 5\text{m} + 5\text{m}$$

$$\text{Perimeter} = 17\text{m}$$

Evaluation activity

Find the perimeter of the following



Lesson 7: Application of perimeter of different shapes.

Sub topic: finding sides of regular polygons using perimeter

Examples;

1. The perimeter of a square is 12cm. What is the length of each side?

A square has 4sides

$$S + S + S + S = p$$

$$4S = 12\text{cm}$$

$$\frac{4s}{4} = \frac{12}{4}\text{Cm}$$

$$S = 3\text{cm}$$

Each side = 3cm

2. The perimeter of a regular triangle is 42cm. Find the length of each side

A triangle has 3 sides

$$S + s + s = p$$

$$3s = 42\text{cm}$$

$$\frac{3s}{3} = \frac{42\text{cm}}{3}$$

$$S = 14\text{cm}$$

Each side is 14cm.

3. The perimeter of a regular pentagon is 20cm. How long is one of its sides?

A pentagon has 5 sides

$$P = s + s + s + s + s$$

$$\frac{20cm}{5} = \frac{5s}{5}$$

$$4cm = s$$

One side = 4cm

Evaluation activity

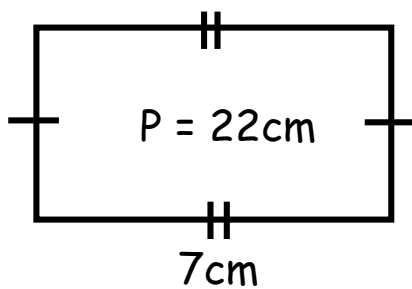
1. The perimeter of a square is 16m. What is the length of each side?
2. The perimeter of a regular triangle is 36cm. Find the length of each side
3. The perimeter of a regular triangle is 45dm. Find the length of each side
4. The perimeter of a square is 20m. What is the length of each side?
5. The perimeter of a regular pentagon is 50cm. How long is one of its sides?

LESSON 8

SUB TOPIC: FINDING ONE SIDE OF A RECTANGLE USING PERIMETER

Examples

1. The perimeter of a rectangle is 22cm and its length is 7cm
find its width.



$$P = 2(l + w)$$

$$22 = 2(7 + w)$$

$$22 = 14 + 2w$$

$$22 - 14 = 14 - 14 + 2w$$

$$8 = 0 + 2w$$

$$\frac{8}{2} = \frac{2w}{2}$$

$$w = 4\text{cm}$$

2. The perimeter of a rectangle is 40m if its width is 9m find its
length

$$P = l + w + l + w$$

$$40\text{ m} = l + 9\text{m} + l + 9\text{m}$$

$$40\text{ m} = l + l + 9\text{m} + 9\text{m}$$

$$40\text{m} = 2l + 18\text{m}$$

$$40\text{ m} - 18\text{m} = 2l + 18\text{m} - 18\text{m}$$

METHOD II

$$2(L + W) = P$$

$$2(L + 9\text{m}) = 40\text{m}$$

$$2 \times L + 2 \times 9\text{m} = 40\text{m}$$

$$2L + 18\text{m} = 40\text{m}$$

$$2L + 18\text{m} - 18\text{m} = 40\text{m} - 18\text{m}$$

$$2L = 22\text{m}$$

$$\frac{2L}{2} = \frac{22\text{m}}{2}$$

$$L = 11\text{m}$$

$$\text{Length} = 11\text{m}$$

$$22m = 2l$$

$$\frac{22m}{2} = \frac{2L}{2}$$

$$11m = l$$

$$\text{Length} = 11m$$

Evaluation activity

1. The perimeter of a rectangle is 42m and its length is 14m
find its width
2. The perimeter of a rectangle is 56dm and its length is 20dm
find its width
3. The perimeter of a rectangle is 30m if its width is 7m find
its length
4. The perimeter of a rectangle is 60cm if its width is 10cm
find its length
5. The perimeter of a rectangle is 70m if its width is 15m find
its length
6. The perimeter of a rectangle is 44cm if its width is 6m find
its length

Lesson 9: Area of a rectangle.

Teaching / learning activities.

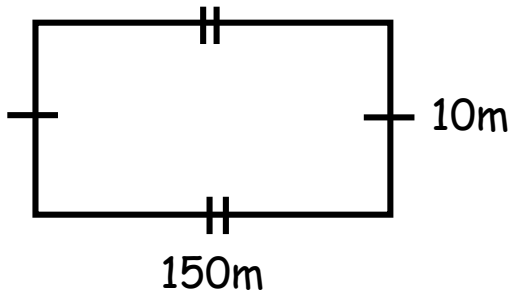
Identifying the formula to find the area of a rectangle.

Using the formula to find the area.

Examples

1. A rectangular garden measures 150 m by 10 m.

Find its area.



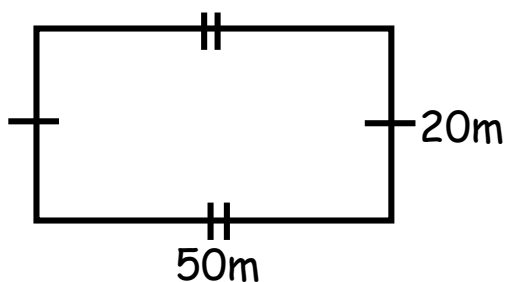
$$\text{Area} = \text{length} \times \text{width}$$

$$\text{Area} = 150\text{m} \times 10\text{m}$$

$$\text{Area} = 1500\text{m}^2$$

2. A rectangular garden measures 50 m by 20 m.

Find its area.



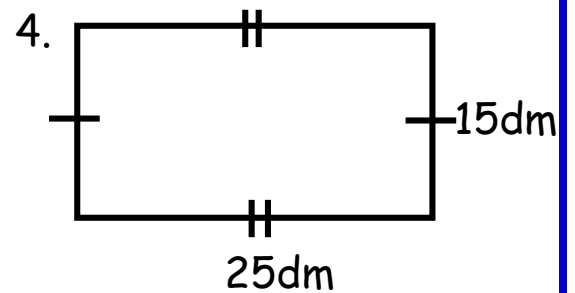
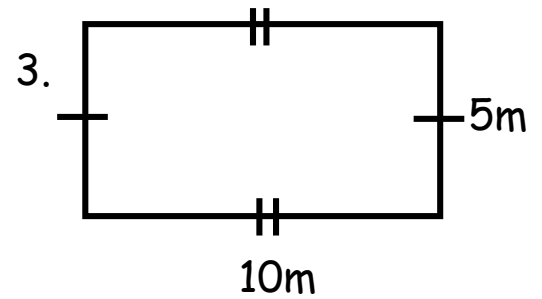
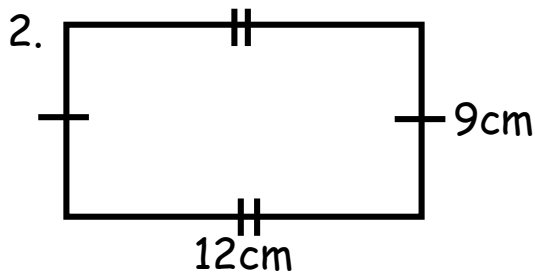
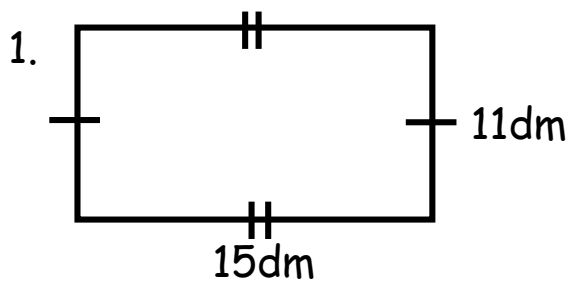
$$\text{Area} = \text{side} \times \text{side}$$

$$\text{Area} = 50\text{m} \times 20\text{m}$$

$$\text{Area} = 1000\text{m}^2$$

Evaluation activity

Find the area of the following figures;



5. A rectangular garden measures 50m by 45m. Find its area.

6. A rectangular garden measures 70dm by 50dm. Workout its area.

LESSON 10

Application of area.

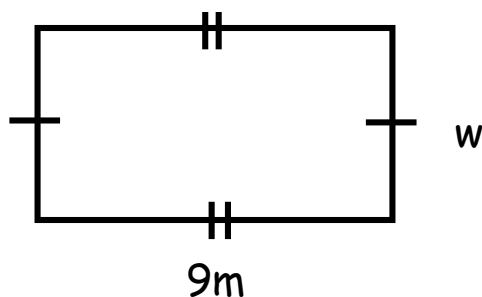
a) Rectangle

Teaching / learning activities.

Interpreting the given information.

Finding the missing side given area of a rectangle.

Example



The area of a rectangle above is 36m^2 . Find the width of the garden given its lengths as 9 m.

Area of a rectangle = length x width

$$L \times w = 36\text{m}^2$$

$$9\text{ m} \times w = 36\text{ m}^2$$

$$\frac{9\text{m} \times w}{9\text{m}} = \frac{36\text{m}^2}{9\text{m}}$$

$$W = 4\text{ m}$$

Evaluation activity

1. The area of a rectangle is 42cm^2 . Find the width of the garden given its lengths as 9cm.
2. The area of a rectangle above is 56m^2 . Find the width of the garden given its lengths as 8m.
3. The area of a rectangle above is 80m^2 . Find the length of the garden given its width as 8m.
4. The area of a rectangle above is 64cm^2 . Find the width of the garden given its lengths as 16 m.
5. The area of a rectangle above is 36m^2 . Find the width of the garden given its lengths as 9m.

Lesson 11: Area of a square.

Teaching / learning activities.

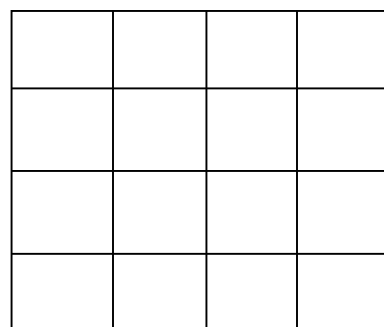
Defining area.

Finding area of a square.

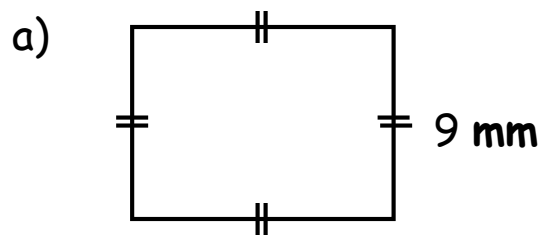
1. Find the area of the figure below

$$\text{Area} = 4\text{squares} \times 4\text{squares}$$

$$\text{Area} = 16\text{ square units}$$



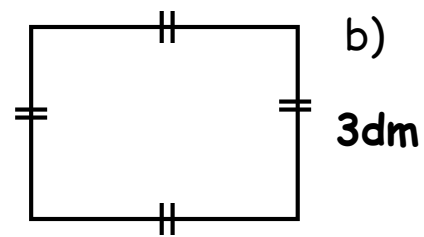
2. Find the area of the squares below.



Area = side \times side

Area = 9mm \times 9mm

Area = 81mm²



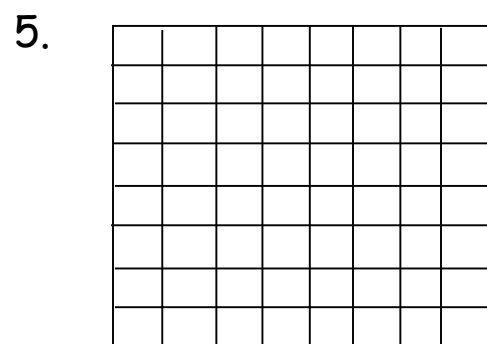
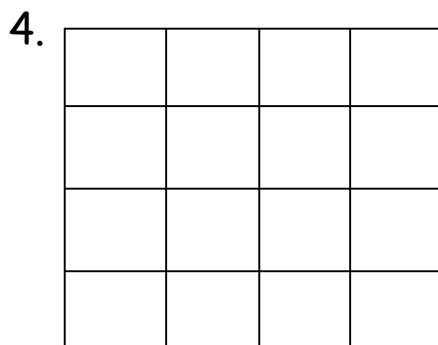
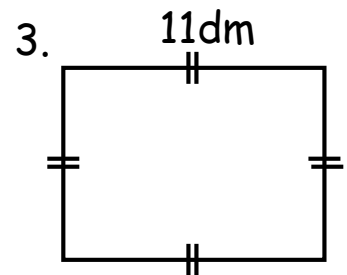
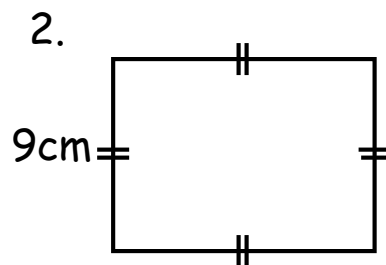
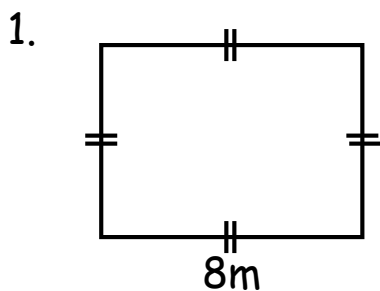
Area = side \times side

Area = 3dm \times 3dm

Area = 9dm²

Evaluation activity

Find the area of the figures below;



6. Find the area of the square whose side is 3.5 m

7. Find the area of the square whose side is 9.5 dm

8. Find the area of the square whose side is 10.2 cm

LESSON 12

Application of area of a square

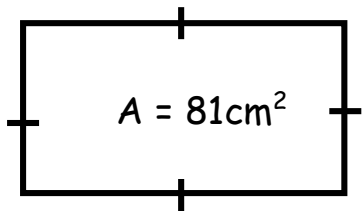
Teaching / learning activities

Interpreting given information in relation to area of a square.

Finding missing side given area of a square.

Example

The area of a square is 81cm^2 . Find the length of each side.



$$\text{Area} = \text{side} \times \text{side}$$

$$81 \text{ cm}^2 = s \times s$$

$$\sqrt{81} \text{ cm}^2 = \sqrt{s^2}$$

$$s = 9 \text{ cm}$$

Evaluation activity

1. Given the area of the square is 9 mm^2 . Find the length of each side.
2. The square garden measures garden measures $x \text{ cm}$ by $x \text{ cm}$.
If its area is 25 cm^2 . Find the value of x .
3. The area of a square room is 144 dm^2 . Find the length of each side.
4. The area of a square is 100 mm^2 . Find the length of one side.
5. The area of a square garden is 196 m^2 . Find the length of each side.
6. Find the side of a square whose area is 121 dm^2

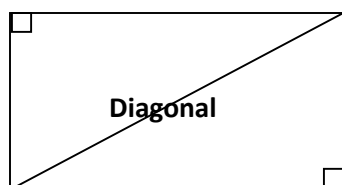
LESSON 13: Finding area of a triangle.

T / learning activities.

Deriving formula for finding the area of a triangle.

Finding the area of a triangle.

Example

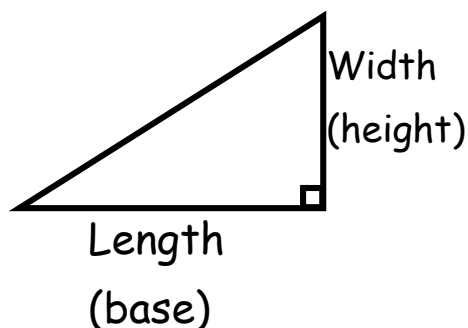


Area = length + width

$\frac{1}{2}$ of length x width

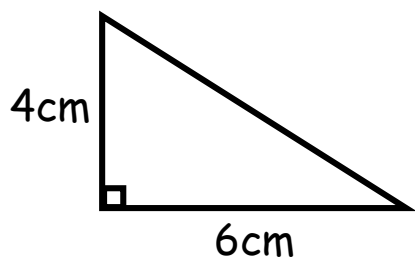
but length is base

width becomes height of the triangle formed.



Area of triangle becomes = $\frac{1}{2}$ x base x height

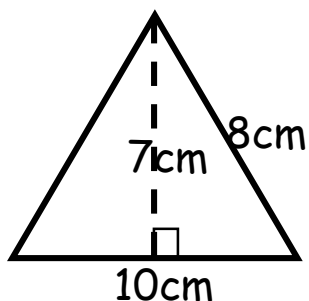
1. Find the area of the triangular shapes below.



Area of triangle is = $\frac{1}{2}$ bh

$$\text{Area} = \frac{1}{2} \times 6 \text{ cm} \times 4 \text{ cm}$$

$$\text{Area} = 12 \text{ cm}^2$$



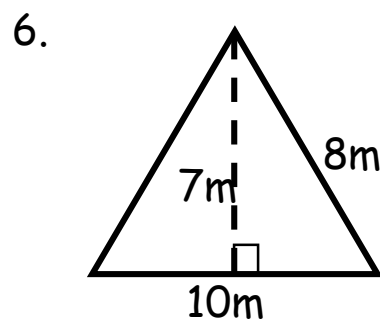
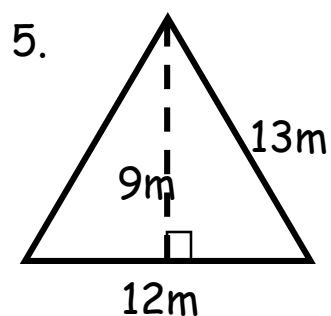
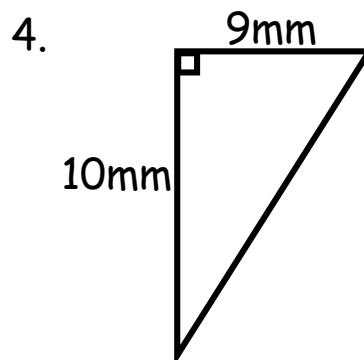
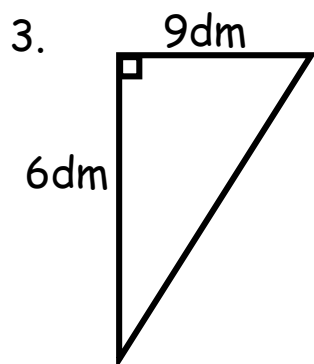
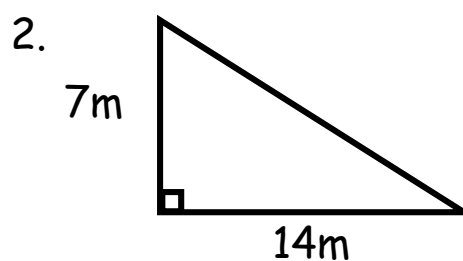
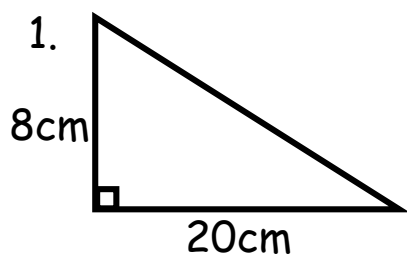
$$\text{Area} = \frac{1}{2} \times \text{base} \times \text{height}$$

$$\text{Area} = \frac{1}{2} \times 10 \text{ cm} \times 7 \text{ cm}$$

$$\text{Area} = 35 \text{ cm}^2$$

Evaluation activity

Find the area of the triangular shapes below;



Lesson 14: Application of area of a triangle

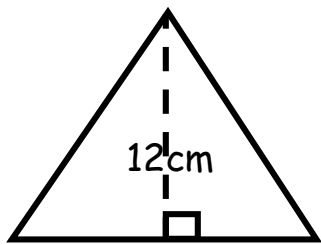
T / learning activities.

Interpreting given information in relation to area of side.

Using the area and side given to find the missing side.

Example

Find the base of a triangle whose area is 60 cm^2 and height is 12 cm.



$$A = 60 \text{ cm}^2$$

Area of a triangle is $\frac{1}{2} b h$

$$60 \text{ cm} \times \cancel{\text{cm}} = \frac{1}{2} \times b \times \cancel{12 \text{ cm}}$$

$$\frac{10 \text{ cm}}{\cancel{6}} = \frac{\cancel{8} b}{\cancel{8}}$$

$$\text{Base} = 10 \text{ cm}$$

Evaluation activity

1. Find the base of a triangle whose area is 60 cm^2 and height is 10 cm.
2. Find the base of a triangle whose area is 36 m^2 and height is 12m.
3. Find the base of a triangle whose area is 70 m^2 and height is 20 m.
4. Find the height of a triangle whose area is 70 cm^2 and base is 14cm.
5. Find the height of a triangle whose area is 120 cm^2 and base is 30cm.

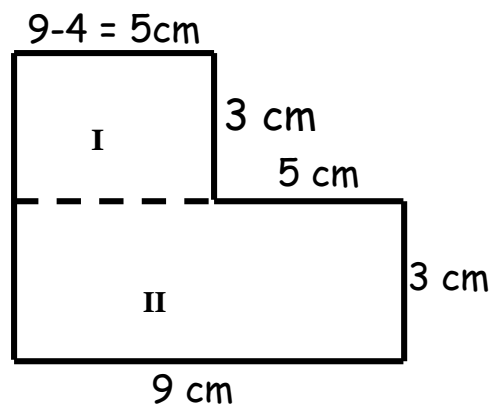
Lesson 15: Finding area of combined shapes.

Teaching/ learning activities.

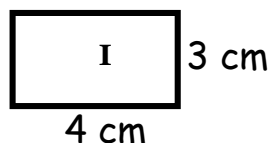
Identifying the different shapes that form the combined figures.

Finding area of the combined shape.

Example



Area of figure I

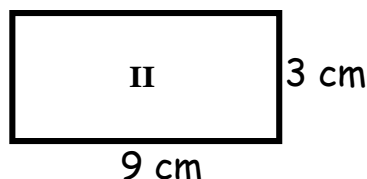


$$A = L \times W$$

$$4\text{cm} \times 3\text{cm}$$

$$12\text{cm}^2$$

Area of figure II



$$A = L \times W$$

$$9\text{cm} \times 3\text{cm}$$

$$27\text{cm}^2$$

Area of combined

Figure = Area of I + Area of II

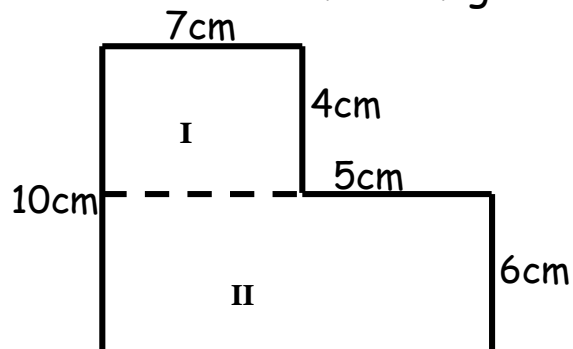
$$12\text{cm}^2 + 27\text{cm}^2$$

$$= 39\text{cm}^2.$$

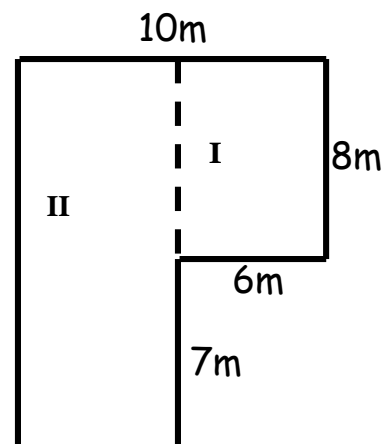
Evaluation activity

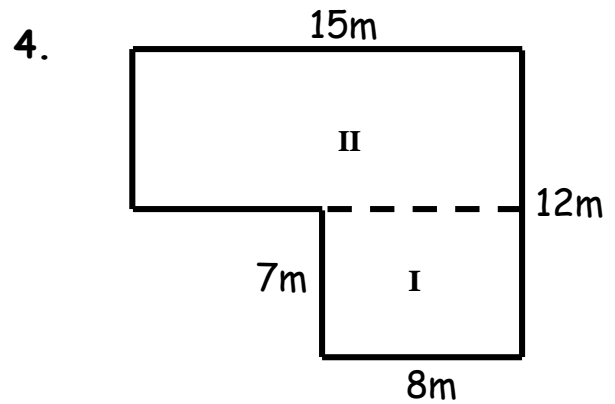
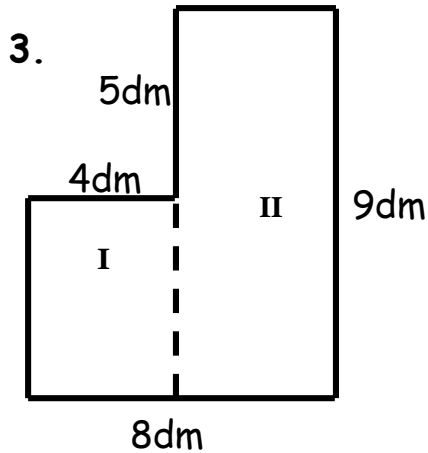
Find the area of the figures below;

1.



2.





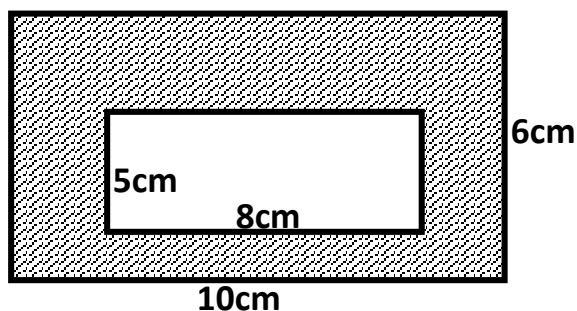
Lesson 16: Difference in area.

Teaching/learning area

- studying the shapes given.
- finding area of the shapes.
- subtracting area.

Example

Find the area of the shaded point.



Area of the big rectangle.

$$\begin{aligned}
 A &= L \times W \\
 &= 10\text{cm} \times 6\text{cm} \\
 &= 160\text{cm}^2
 \end{aligned}$$

Area of the smaller rectangle

$$\text{Area} = L \times W$$

$$= 8\text{cm} \times 5\text{cm}$$

$$= 40\text{cm}^2$$

Area of shaded part

$$160\text{cm}^2$$

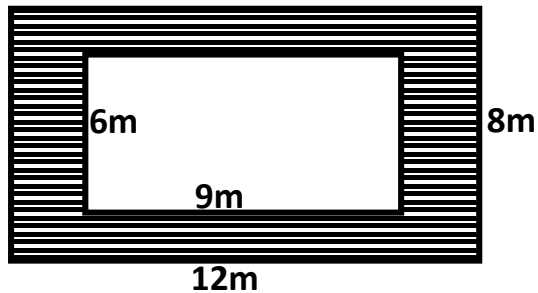
$$- 40\text{cm}^2$$

$$\hline 120\text{cm}^2$$

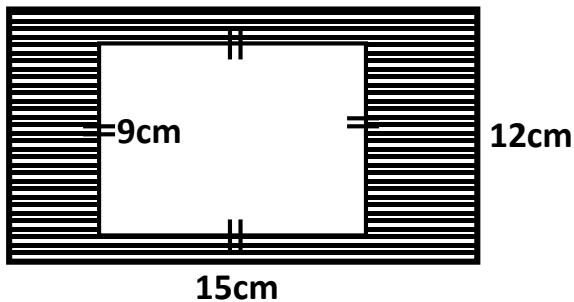
Evaluation activity

Find the area of the shaded regions in the figures below;

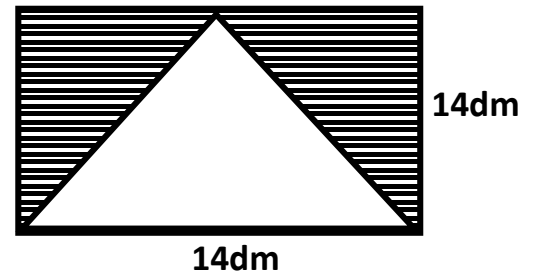
1.



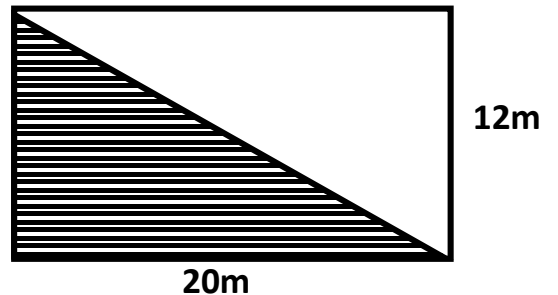
2.



3.



4.



LESSON 17: COMPARING LITRES, HALF LITRES AND QUARTER LITRES

Comparing units of capacity using $<$, $>$ or $=$

Identifying the relationship between units of capacity.

Using $<$, $>$, or $=$ to complete the given statements correctly.

Examples

2 litres ____ 100 milli litres

1 l = 1000 milli litres

2 l = 2 \times 1000

= 2000 milli litres

2 l $>$ 100 milli litres

Evaluation activity

i) 3 l ____ 50 milli litres

ii) 400ml ____ 2000ml

- iii) 2.3 l _____ 2300 ml
- iv) 0.2 l _____ 2000 ml
- v) 5.5 l _____ 5000 ml
- vi) 1.5 l _____ 2000 ml
- vii) 300 l _____ 3000 ml

Lesson 18: Mass in kg and grams

Teaching/learning activities.

- Identifying units of mass
- Identifying the relationship between kg and grams.
- changing kg to grams.

Examples

1. Change 2kg to grams

$$1\text{kg} = 1000\text{g}.$$

$$2\text{kg} = (1000 \times 2) \text{ g}$$

$$2\text{kg} = 2000\text{g}.$$

c) 7.5kg

$$1\text{kg} = 1000\text{g}$$

$$7.5\text{kg} = (1000 \times$$

7.5)

$$= 1000 \times \frac{75}{10}$$

$$= 7500\text{gramm}$$

Evaluation activity

Change the following as instructed

- (i) 5kg to g
- (ii) 30 kg to g
- (iii) 45kg to g

- (iv) 5.5kg to g
- (v) 3.6 kg to g
- (vi) 5.25 kg to g
- (vii) 5.15kg to g

Lesson 19: Changing grams to kg.

Teaching/learning activities.

-writing relationship between grams and kg.

-changing grams to kg.

Example

Change 5000 grams to kg.

$$1000\text{grams} = 1\text{kg}$$

$$1\text{g} = \left(\frac{1}{1000}\right)\text{kg}$$

$$5000\text{g} = \frac{1}{1000} \times 5000$$

$$= 5\text{kg}$$

Evaluation activity

Change the following as instructed

- (i) 3000g to kg
- (ii) 15000g to kg
- (iii) 45000g to kg

- (iv) 5500g to kg
- (v) 3600g to kg
- (vi) 52500g to kg
- (vii) 51500g to kg

Lesson 20: Application of mass

Teaching/learning activities

Changing kg to grams

Example

1. How many 200g packets can be obtained from a 2kg bag?

$$1\text{kg} = 1000\text{g}$$

$$2\text{kg} = 2 \times 1000\text{g}$$

$$= 2000g$$

$$\text{Number of packets} = \frac{2000}{200}$$

$$= 10 \text{ packets.}$$

Evaluation activity

1. Kiyuba had 5kg of sugar and packed them in packets of 250g each. How many packets did he get?
2. Boda boda carried wheat flour packed in packets of 500 grams each. If he carried 300 packets. How many kg did he carry?
3. How many $\frac{2}{5}$ kg packets can be got from 60000g?
4. How many $\frac{1}{4}$ kg packets can be got from 25kg?
5. How many half kilograms in a 20kg bag?

Lesson 21: capacity.

Changing litres to milliliters.

Teaching /learning activities.

- comparing containers.
- Identifying units of capacity.
- Writing relationship of units of capacity.
- changing litres to milliliters.

Examples

Change a) 3 litre to milliliters.

$$1 \text{ litre} = 1000 \text{ milli litres}$$

$$\begin{aligned} 3 \text{ litres} &= (1000 \times 3) \text{ ml} \\ &= 3000 \text{ ml.} \end{aligned}$$

b) 0.8 litre

$$1 \text{ litre} = 1000 \text{m}$$

$$\begin{aligned} 0.8 &= 1000 \times \frac{8}{10}. \\ &= 800 \text{ml} \end{aligned}$$

c). $4\frac{1}{2}$ litres to milli litres.

1 litre = 1000 milli litre

$$4\frac{1}{2} = (4 \times 1000) + \frac{1}{2} \times 1000$$

$$4000 + 500$$

$$= 4500\text{ml}$$

Evaluation activity

Evaluation activity Change the following as instructed (i) 3l to ml (ii) 15l to ml (iii) 45l to ml	(iv). $3\frac{1}{2}$ litres to milli litres. (v) $9\frac{1}{2}$ litres to milli litres. (vi). $10\frac{1}{2}$ litres to milli litres. (vii). $7\frac{1}{2}$ litres to milli litres.
---	--

Lesson 22: Changing milliliters to litres

Examples

Change 900 ml to litres.

$$1000\text{ml} = 1 \text{ litre,}$$

$$1 \text{ ml} = \left(\frac{1}{1000}\right) \text{ litres.}$$

$$900\text{ml} = \left(\frac{1}{1000} \times 900\right) \text{ litres}$$

$$\frac{9}{10}.$$

$$= 0.9 \text{ litres.}$$

Evaluation activity

Evaluation activity

Change the following as instructed

- (i) 300 ml to l
- (ii) 1500 ml to l
- (iii) 45000 ml to l

(iv).60000 ml to litres.

(v) 8500 ml to litres.

(vi).150 ml to litres.

(vii).70 ml to litres.

LESSON 23

Application of conversion of units of capacity.

Teaching /learning activities.

-applying conversion of units in solving mathematical tasks in real life situations.

-identifying the relationship between units of capacity.

Example

1. How many containers of type A will fill container type B.



200 milli litres



1.8 litres

1 litre = 1000 ml

1.8 litres = (1000 × 1.8) ml

$$1000 \times \frac{18}{10}$$

$$= 1800\text{ml}$$

Container B ÷ container A

$$\begin{array}{r} 9 \\ 1800 \\ \hline 200 \end{array}$$

9 containers.

Evaluation activity

1. How many half litre cups can fill a bucket of 15 litres?
2. How many pails of 250 ml. can fill a container of 50 litres.
3. If I use a mag of 300mls, fill a jerrycan of 1200ml. How many such mugs can be used?
4. How many packets of milk of 500ml/ each can be got from 1 litre of milk?
5. How many jerrycan of 20 litres can be used to fill a tank of 800 litres?

LESSON 19: LESSON 34 ADDITION AND SUBTRACTION OF UNITS.

Examples:

$$\begin{array}{r} \text{L} \quad \text{ml} \\ 1. \quad 3 \quad \overset{1}{6} \overset{1}{7} 9 \\ + \quad 2 \quad 239 \\ \hline \quad 5 \quad 918 \end{array}$$

Evaluation activity

- i) Add 34 l + 350ml
- ii) Add 16 l + 230ml
- iii) Add 256 l + 370ml
- iv) Add 120 l + 340ml
- v) Add 199 l + 450ml

$$\begin{array}{r}
 \text{L} \quad \text{ml} \\
 2. \quad 45 \quad 980 \\
 - \quad 10 \quad 450 \\
 \hline
 35 \quad 530
 \end{array}$$

Evaluation activity

- (i) Subtract 54 l - 380ml
- ii) Subtract 16 l - 230ml
- i) Subtract 256 l - 370ml
- ii) Subtract 120 l - 340ml
- iii) Subtract 199 l - 450ml

LESSON 35: MULTIPLICATION OF LITRES AND MILLI LITRES

Examples:

$$\begin{array}{r}
 \text{L} \quad \text{ml} \\
 1. \quad \overset{2}{3} \quad \overset{2}{6} \overset{2}{7} 9 \\
 \times \quad \quad 3 \\
 \hline
 11 \quad 037
 \end{array}$$

$$\begin{array}{r}
 \text{L} \quad \text{ml} \\
 2. \quad 4 \quad \overset{2}{1} 15 \\
 \times \quad \quad 4 \\
 \hline
 16 \quad 460
 \end{array}$$

$$\begin{array}{r}
 \text{L} \quad \text{ml} \\
 3. \quad \overset{1}{7} \quad \overset{1}{2} 20 \\
 \times \quad \quad 9 \\
 \hline
 64 \quad 980
 \end{array}$$

Evaluation activity

- i) Multiply 5l and 380ml by 4
- ii) Multiply 8l and 230ml by 6
- iii) Multiply 21 l and 370ml by 8
- iv) Multiply 12 l and 340ml by 9
- v) Multiply 19 l and 450ml by 10
- vi) Multiply 23 l and 390 ml by 5

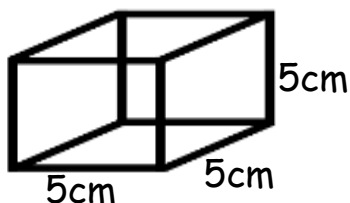
Lesson 36: Volume of cubes and cuboids:

T/learning activities

- differentiating a cube from a cuboid.
- finding volume of cubes and cuboids.

Examples.

Cube

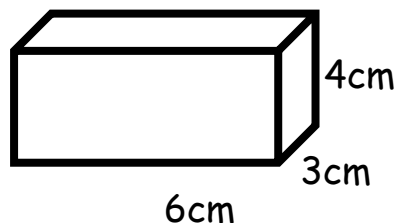


$$V = s \times s \times s$$

$$V = 5\text{cm} \times 5\text{cm} \times 5\text{cm}$$

$$V = 125\text{cm}^3$$

cuboid



$$V = \text{Length} \times \text{width} \times \text{height}$$

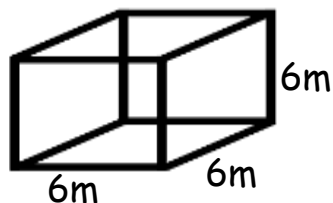
$$V = 6\text{cm} \times 3\text{cm} \times 4\text{cm}$$

$$V = 72\text{cm}^3$$

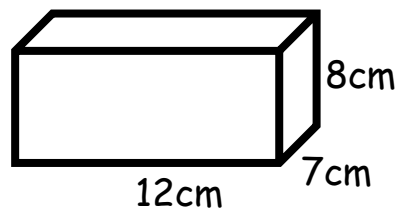
Evaluation activity

Find the volume of the prisms below;

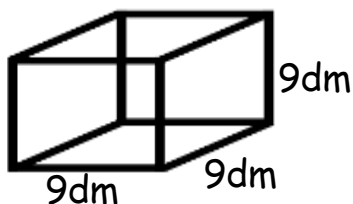
1.



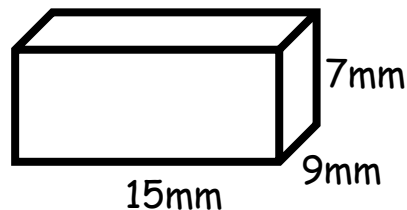
2.



3.



4.



Lesson 6: Finding one side of a cuboid when given the volume

Examples

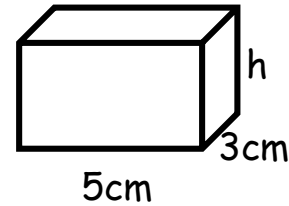
1. Find the missing side of the cuboid given the volume = 50cm^3 .

$$V = l \times w \times h$$

$$60\text{cm}^3 = 5\text{cm} \times 3\text{cm} \times h$$

$$\frac{60\cancel{\text{cm}^3}^4}{\cancel{15}} = \frac{15\cancel{\text{cm}^2}^1 h}{\cancel{15\text{cm}^2}}$$

$$4\text{cm} = h$$



2. The volume of a box is 60cm^3 . Its height is 5cm and width is 4cm . Find its length.

Let h be height

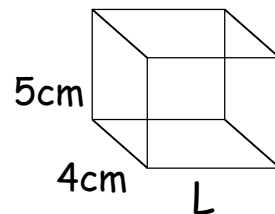
$$L \times w \times h = \text{volume}$$

$$L \times 4\text{cm} \times 5\text{cm} = 60\text{cm}^3$$

$$\frac{L \times \cancel{20\text{cm}^2}}{\cancel{20\text{cm}^2}} = \frac{\cancel{60\text{cm}^3}^3}{\cancel{20\text{cm}^2}}$$

$$\cancel{20\text{cm}^2} \quad \quad \quad \cancel{20\text{cm}^2}$$

$$L = 3\text{cm}$$



3. The volume of the cuboid is 80cm^3 . Its length is 8cm and height is 2cm . What is its width?

Let w be width

$$L \times w \times h = \text{volume}$$

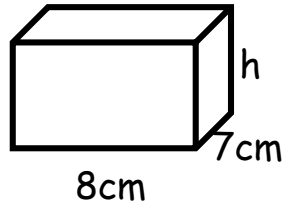
$$8\text{cm} \times w \times 2\text{cm} = 80\text{cm}^3$$

$$\frac{W \times 16\cancel{\text{cm}^2}}{16\cancel{\text{cm}^2}} = \frac{80\cancel{\text{cm}^3}^5}{16\cancel{\text{cm}^2}}$$

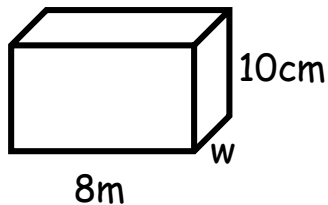
$$W = 5\text{cm}$$

Evaluation activity

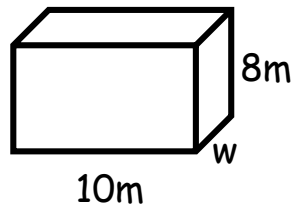
1. Find the missing side of the cuboid given the volume = 336cm^3



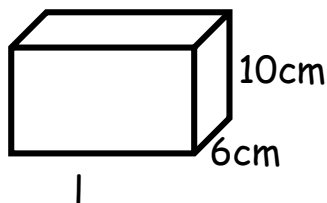
2. Find the missing side of the cuboid given the volume = 720m^3



3. Find the missing side of the cuboid given the volume = 960m^3



4. Find the missing side of the cuboid given the volume = 300cm^3



(END OF LENGTH, MASS AND CAPACITY)