White Rose
Year 6 Activity Sheets

Monday – Lesson 1

Area and Perimeter

Area and perimeter

1 Use the words to complete the sentences.

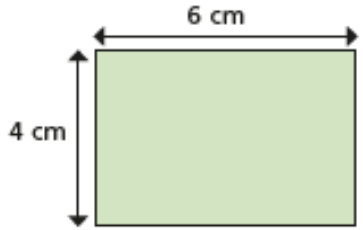
perimeter	cm^2	cm	m
area	m^2	inside	around

_____ is the amount of space _____ a two-dimensional shape. It can be measured in units such as _____ or _____

_____ is the distance _____ a two-dimensional shape. It can be measured in units such as _____ or _____

2 Work out the areas and perimeters of the shapes.

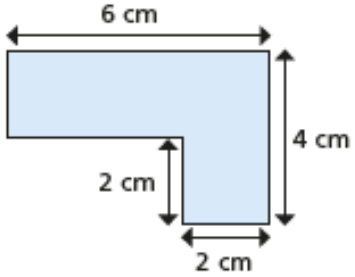
a)



perimeter = ☐ cm

area = ☐ cm^2

b)

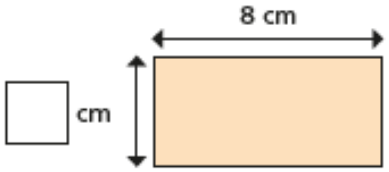


perimeter = ☐ cm

area = ☐ cm^2

3 Work out the missing values.

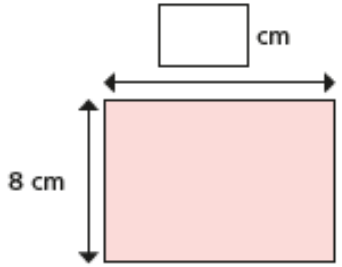
a)



area = 32 cm^2

perimeter = ☐ cm

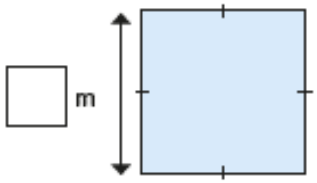
b)



area = ☐ cm^2

perimeter = 40 cm

c)

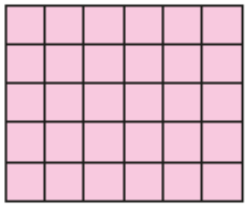


area = ☐ m^2

perimeter = 36 m

4 Work out the areas and perimeters of the shapes.

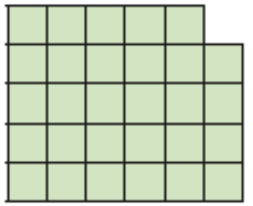
Shape A



area = ☐ cm^2

perimeter = ☐ cm

Shape B



area = ☐ cm^2

perimeter = ☐ cm

What do you notice?

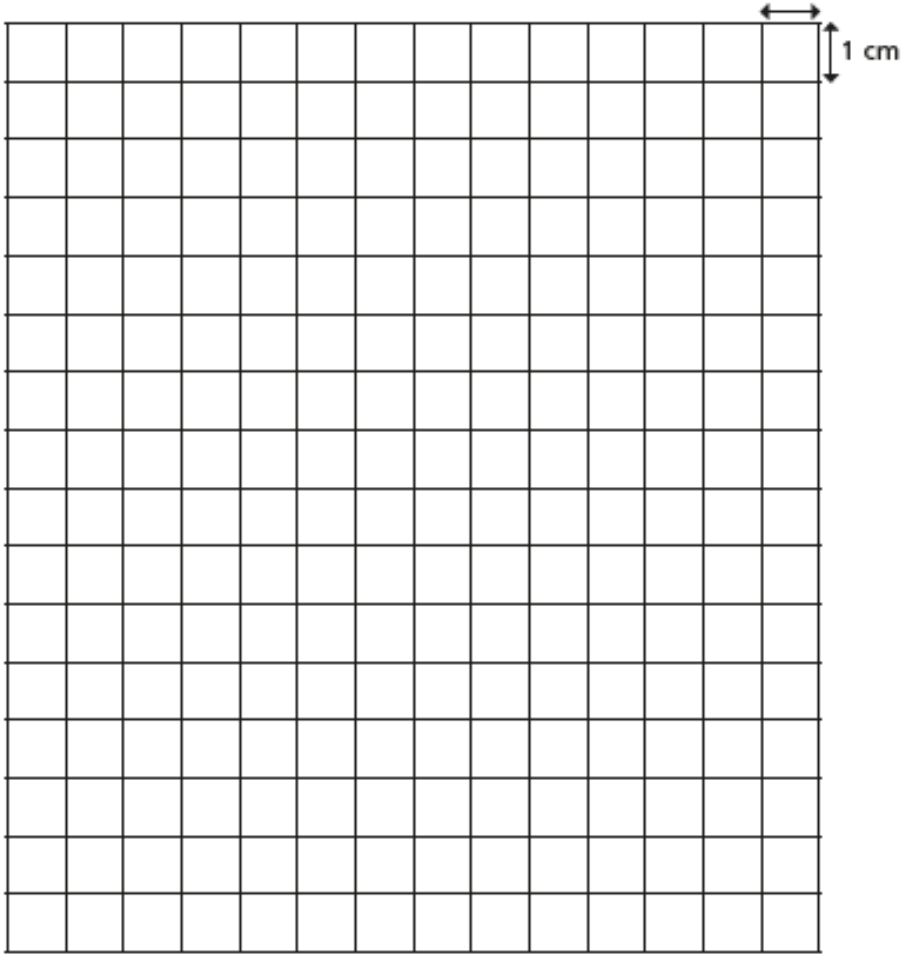
5

Tommy: If you start with a rectilinear shape, when you increase the area, the perimeter will increase.

Amir: It depends on the shape.

Who do you agree with? _____

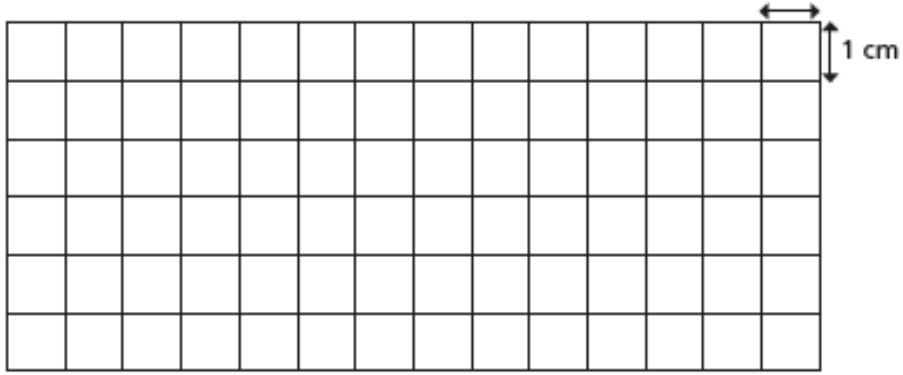
Draw some examples to support your answer.



6 Two rectilinear shapes, A and B, each have an area of 12 squares.

- Shape A has the largest perimeter possible.
- Shape B has the smallest perimeter possible.

Draw shapes A and B.



What do you notice?

7 Mr Jones has 50 m of fencing.

He wants to make a rectilinear enclosure using all the fencing.

a) Draw an example of a shape he could make. Give units on your diagram.

b) What is the greatest possible area of the enclosure? _____

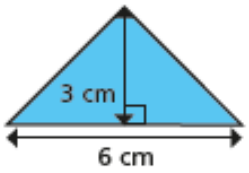
c) What is the smallest possible area of the enclosure? _____

Tuesday – Lesson 2

Area of a triangle

Area of a triangle (3)

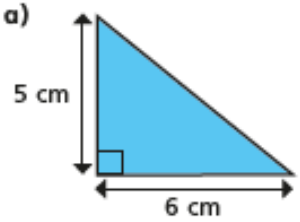
1 Calculate the area of the triangle.



area = ☐ cm²

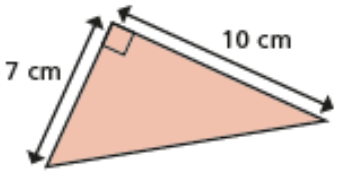
2 Calculate the area of the triangles.

a)



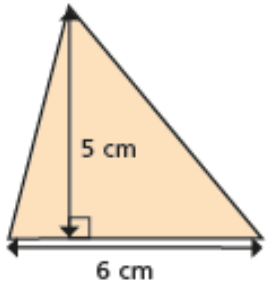
area = ☐ cm²

b)



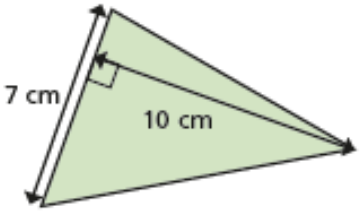
area = ☐ cm²

c)



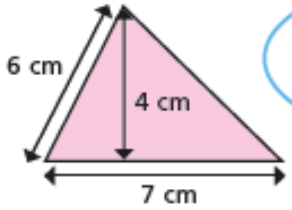
area = ☐ cm²

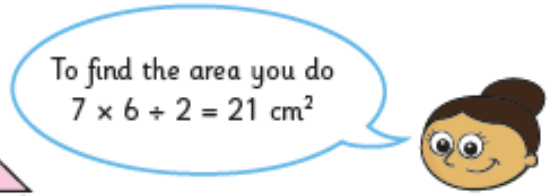
d)



area = ☐ cm²

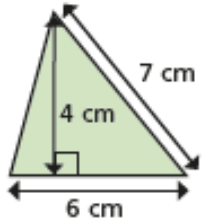
3 What mistake has Dora made?

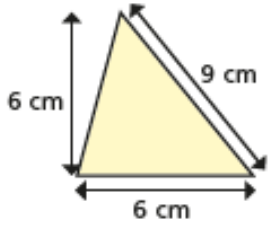


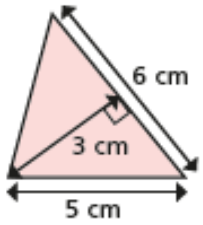


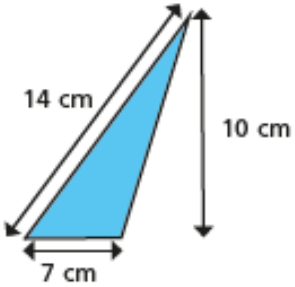
4 Label the base of each triangle b.

Label the perpendicular height h.







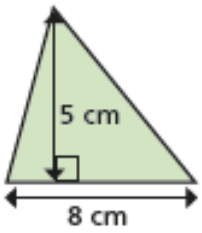


5 Are the statements always, sometimes or never true?

The side at the bottom of a triangle is the base.	The perpendicular height is equal to the vertical height.
_____	_____

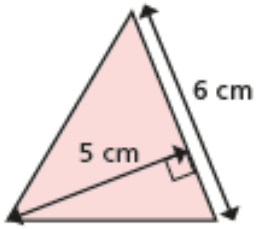
6 Calculate the area of the triangles.

a)



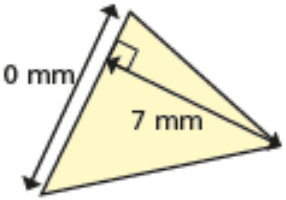
area = ☐ cm²

b)



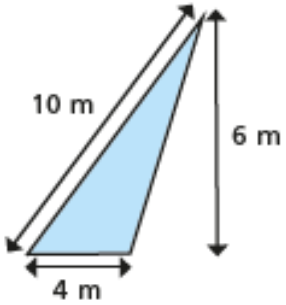
area = ☐ cm²

c)



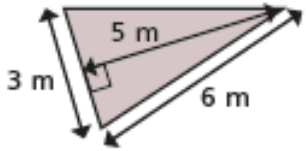
area = ☐ mm²

d)



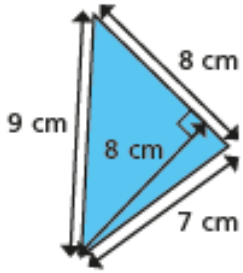
area = ☐ m²

e)



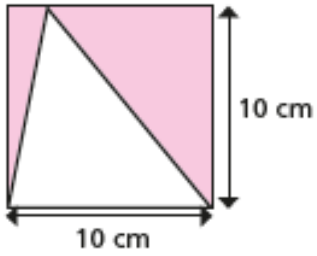
area = ☐ m²

f)



area = ☐ cm²

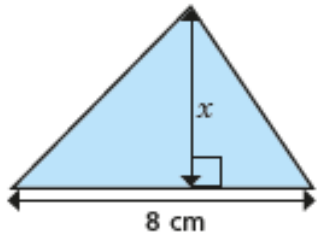
7 Find the area of the shaded region.



area = ☐ cm²

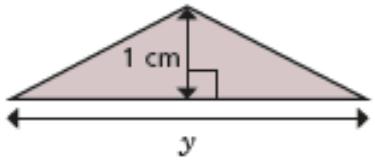
8 The area of each triangle is 12 cm². Find the missing lengths.

a)



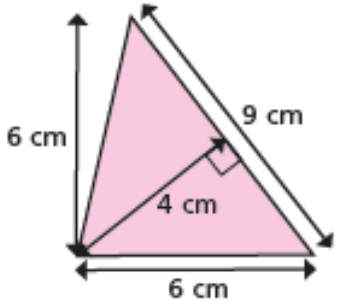
x = ☐ cm

b)



y = ☐ cm

9 Show two ways you can work out the area of the triangle.



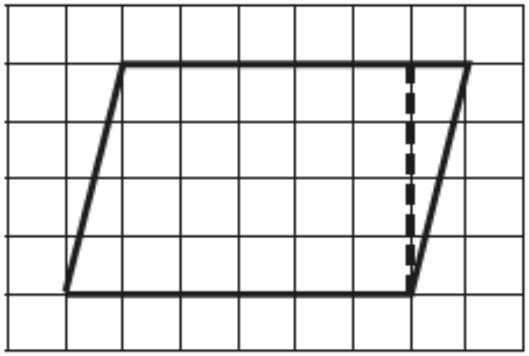
Compare answers with a partner.

Wednesday – Lesson 3

Area of a parallelogram

Area of a parallelogram

1 On a piece of squared paper, copy this parallelogram and cut it out.



a) Create a rectangle by cutting off the right-angled triangle and moving it.

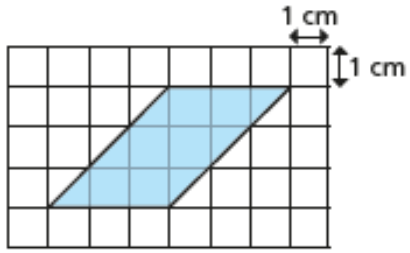
b) Complete the sentences.

The area of the rectangle is ☐ squares.

The area of the parallelogram is ☐ squares.

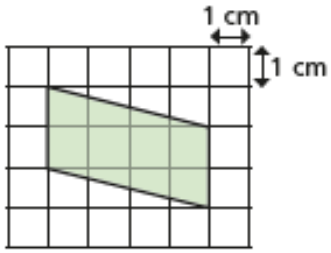
2 Calculate the areas of the parallelograms.

a)



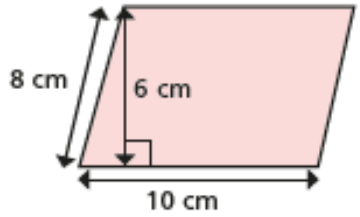
area = ☐ cm²

b)



area = ☐ cm²

3 Huan is finding the area of the parallelogram.



$10 \times 8 = 80$ cm²

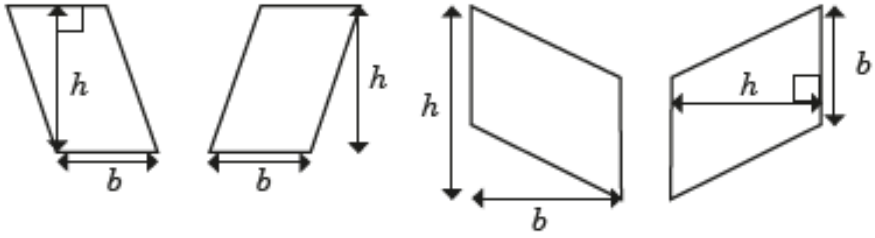
a) What mistake has Huan made?

b) What is the correct answer?

area = ☐ cm²

4 Esther has labelled the bases and heights for four parallelograms.

Three are correct; one is incorrect. Tick the shapes that have been correctly labelled.

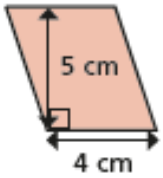


☐ ☐ ☐ ☐

Explain to a partner why one is incorrect.

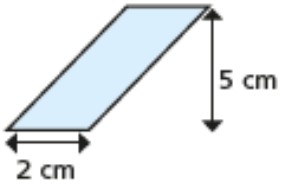
5 Calculate the areas of the parallelograms.

a)



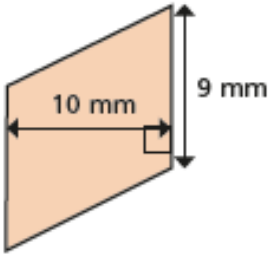
area = ☐ cm²

b)



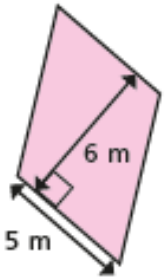
area = ☐ cm²

c)



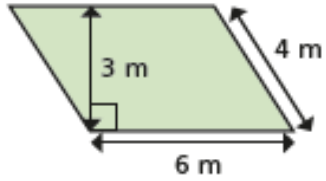
area = ☐ mm²

d)



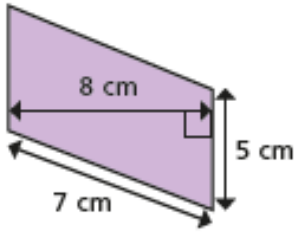
area = ☐ m²

e)



area = ☐ m²

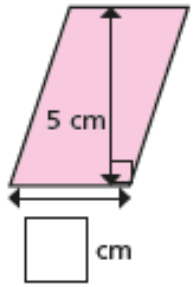
f)



area = ☐ cm²

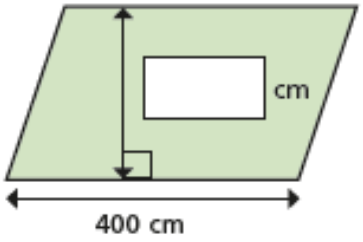
6 Find the missing lengths.

a)



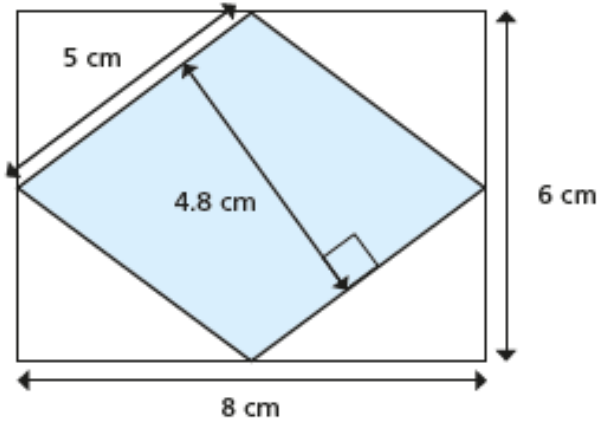
area = 15 cm²

b)



area = 12 m²

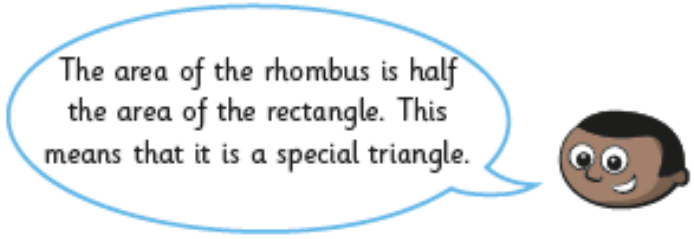
7 Here is a rhombus inside a rectangle.



a) Calculate the area of the rhombus.

area = ☐ cm²

b)



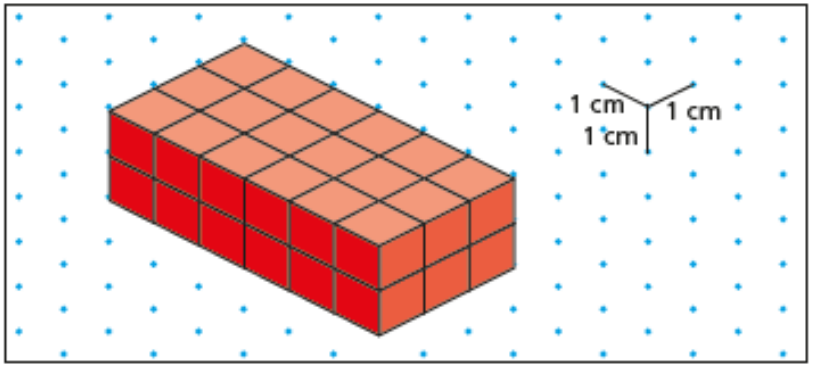
Explain to a partner why Mo is wrong.

Thursday – Lesson 4

Volume of a cuboid

Volume of a cuboid

1 Here is a cuboid made up of cubes.

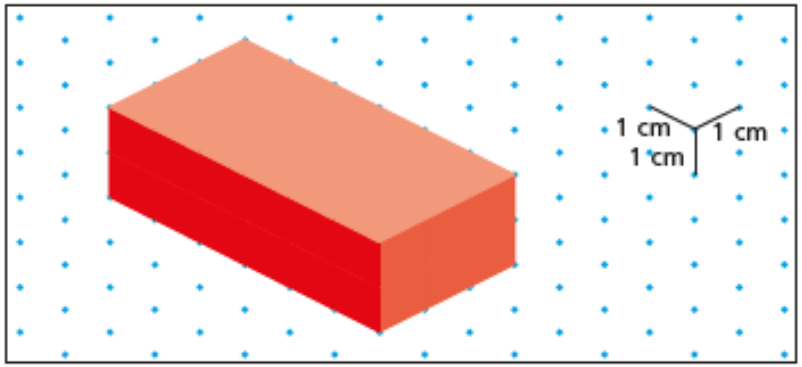


a) What is the volume of the cuboid?

volume = ☐ cm^3

b) Explain your method for finding the volume.

c) What is the volume of this cuboid?



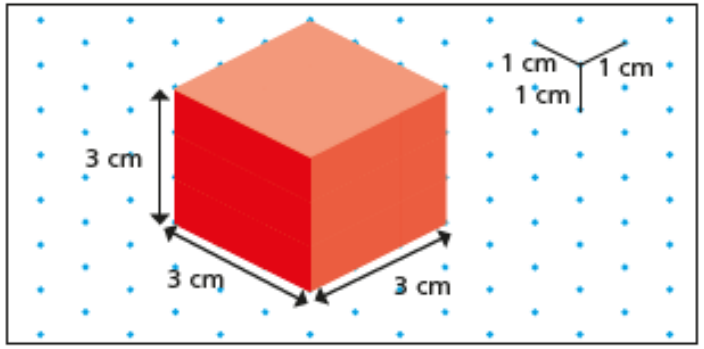
volume = ☐ cm^3

d) What is the same and what is different about the cuboids?

2 Find the volume of the cuboids.

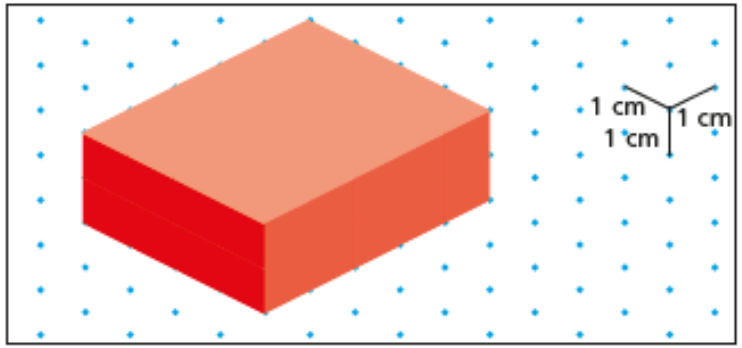
You can make them with cubes if it helps.

a)



volume = ☐ cm^3

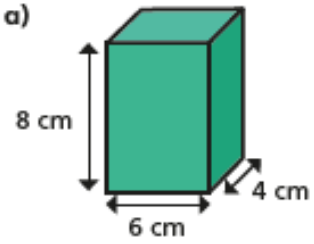
b)



volume = ☐ cm^3

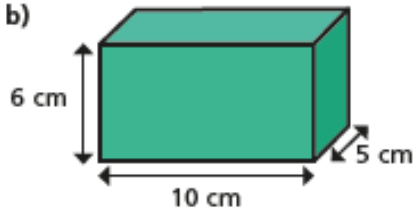
3 Calculate the volumes of the cuboids.

a)



volume = ☐ cm^3

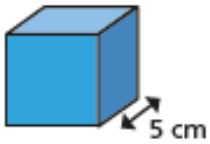
b)



volume = ☐ cm^3

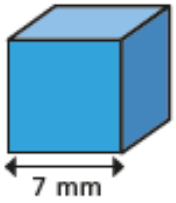
4 Calculate the volumes of the cubes.

a)



volume = ☐ cm³

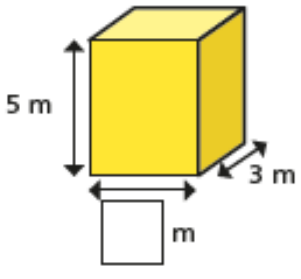
b)



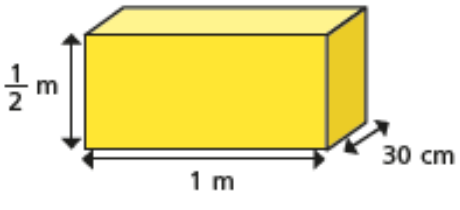
volume = ☐ mm³

5 The volume of the cuboid is 60 m³

Find the missing length.

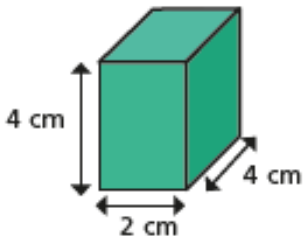


6 Calculate the volume of the cuboid.

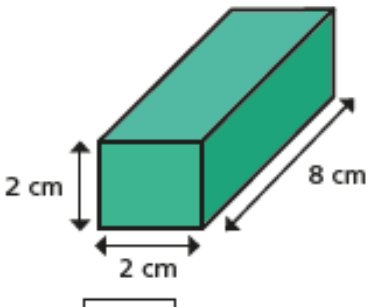


volume = ☐ cm³

7 a) Calculate the volumes of the two cuboids.



☐ cm³

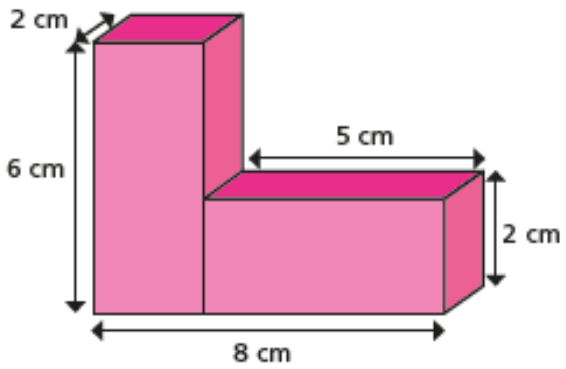


☐ cm³

What do you notice?

b) Draw two different cuboids that have a volume of 24 cm³

8 Calculate the total volume of the shape.



volume = ☐ cm³

Was there another method you could have used?

Friday

Note to Parents:

The Friday Challenge will be made available on the White Rose Year 6 Home Learning page closer the time. 😊