



W.C. 22nd June

<https://www.bbc.co.uk/bitesize/tags/zncsscw/year-6-lessons/1>

<https://whiterosemaths.com/homelearning/year-6/>

Maths

Dear parents/carers, there is no expectation to complete all the work or print worksheets off - children can work on paper if they want to write it down. Thanks for all your hard work.

Also there is work on **StudyLadder** that we know the children love to use. You can email us on s83year6@st-annes.solihull.sch.uk for the password if your child has forgotten their login.

Purple Mash Look out for the activities: Area and Perimeter

There is a Fluent in 5 at the start of Monday to Thursday for the children to practise their arithmetic. We have also uploaded into the home learning section the Corbett Maths 5 a day for the whole of June for each level - Bronze, Silver, Gold, Platinum (as well as the answers) and there is a weekly arithmetic test with answers.



After watching the videos and having a go at the practice activities, have a go at these activities. Depending on your confidence choose Mild, Medium or Spicy.

Extensions - You may wish to deepen your learning by looking at the Collins Worksheets provided by the BBC too.

Monday

<https://www.bbc.co.uk/bitesize/tags/zncsscw/year-6-lessons/1>

<https://whiterosemaths.com/homelearning/year-6/>

Area and perimeter of rectilinear shapes

Fluent in 5

1	$\times 100 = 67,432 =$	 1 mark

2	$345 \div 13 =$	 2 marks

3	$\frac{1}{3} \times \frac{1}{3} =$	 1 mark

4

$6.53 + 1.34 =$

☐

1 mark

5

$91.32 + 15.84 =$

☐

1 mark

6

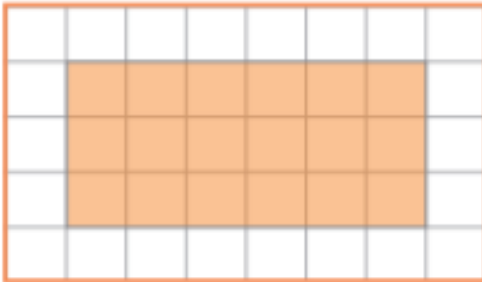
$2^3 =$

☐

1 mark

Area of Rectangles

length $\times$ width = area of a rectangle



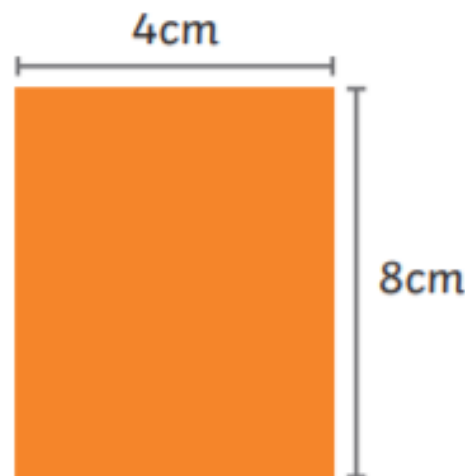
Counting squares:

area = 18cm^2

Use formula:

$6\text{cm} \times 3\text{cm}$

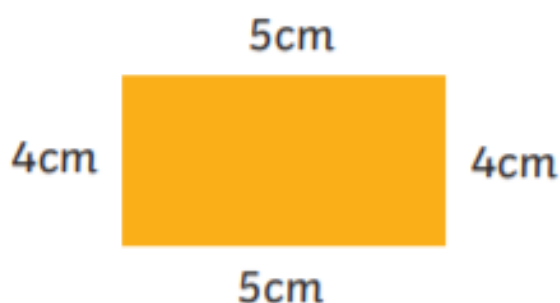
area = 18cm^2



$8\text{cm} \times 4\text{cm}$ area = 32cm^2

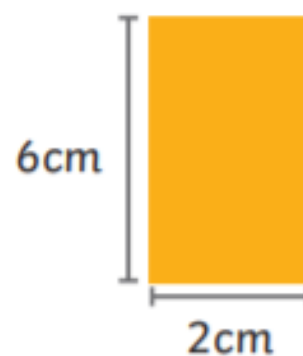
Perimeter of Rectangles

perimeter = length + width + length + width or (length + width) $\times$ 2



$5\text{cm} + 4\text{cm} + 5\text{cm} + 4\text{cm}$

area = 18cm^2

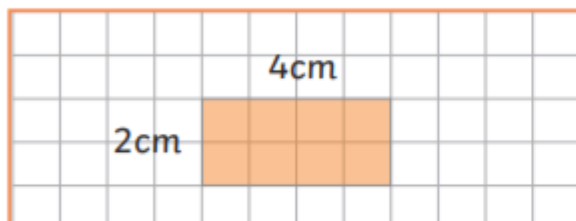


$(6 + 2) \times 2$

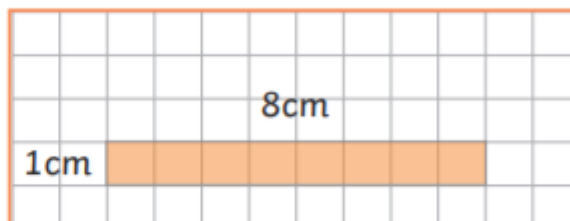
area = 16cm^2

Perimeter and Area

Shapes with the same area can have different perimeters.

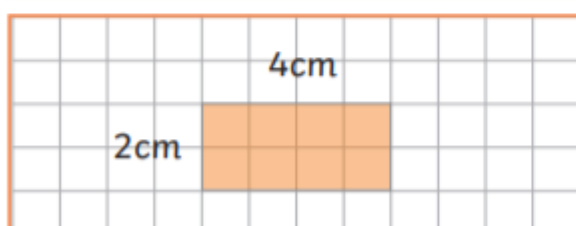


area = 8cm^2 perimeter = 12cm

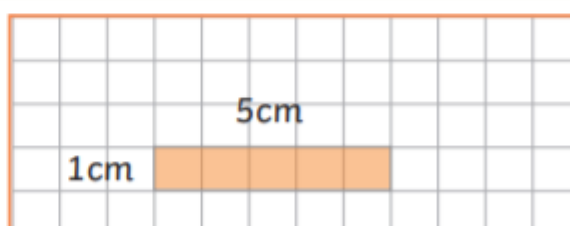


area = 8cm^2 perimeter = 18cm

Shapes with the same perimeter can have different areas.



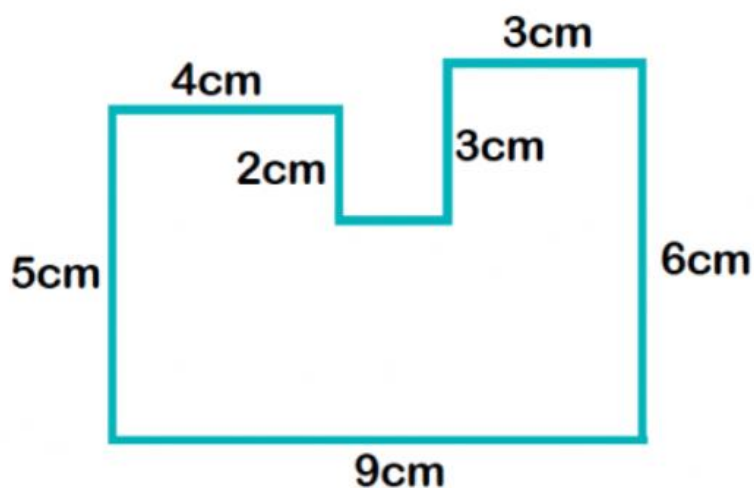
area = 8cm^2 perimeter = 12cm



area = 5cm^2 perimeter = 12cm

The perimeter is the distance around the edge of a 2D shape.

The perimeter of a shape is always calculated by adding up the length of each of the sides.



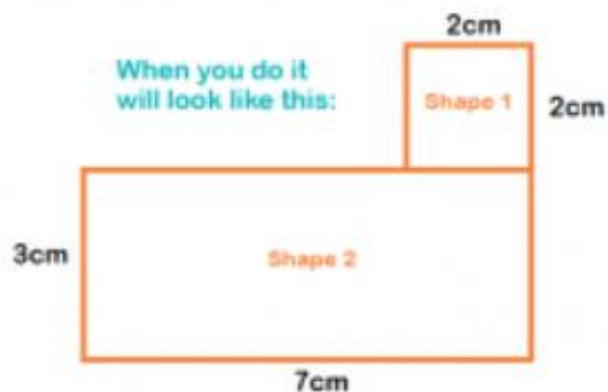
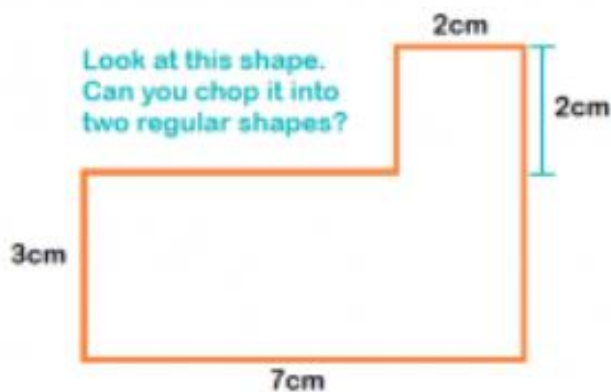
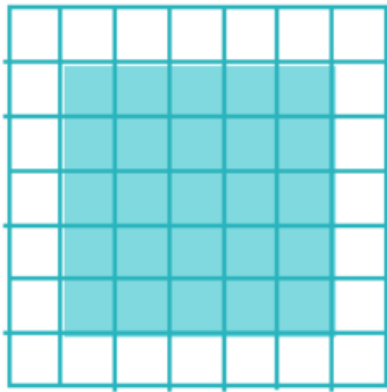
You need to work out the lengths of the edges that are unlabelled, by looking at the other labelled edges.

In this case, you can work out that the unlabelled small side on the shape is 2cm long, since it must be the length of the bottom edge (9cm) minus the two top edges (4cm and 3cm).

To find out the perimeter, you would then need to add up all the sides: $4 + 5 + 9 + 6 + 3 + 3 + 2 + 2 = 34\text{cm}$.

Area is the amount of space taken up by a 2D shape or surface. We measure area in square units : cm^2 , m^2 etc.

Area is calculated by **multiplying the length of a shape by its width**. In this case, we could work out the area of this rectangle even if it wasn't on squared paper, just by working out $5\text{cm} \times 5\text{cm} = 25\text{cm}^2$ (the shape is not drawn to scale).

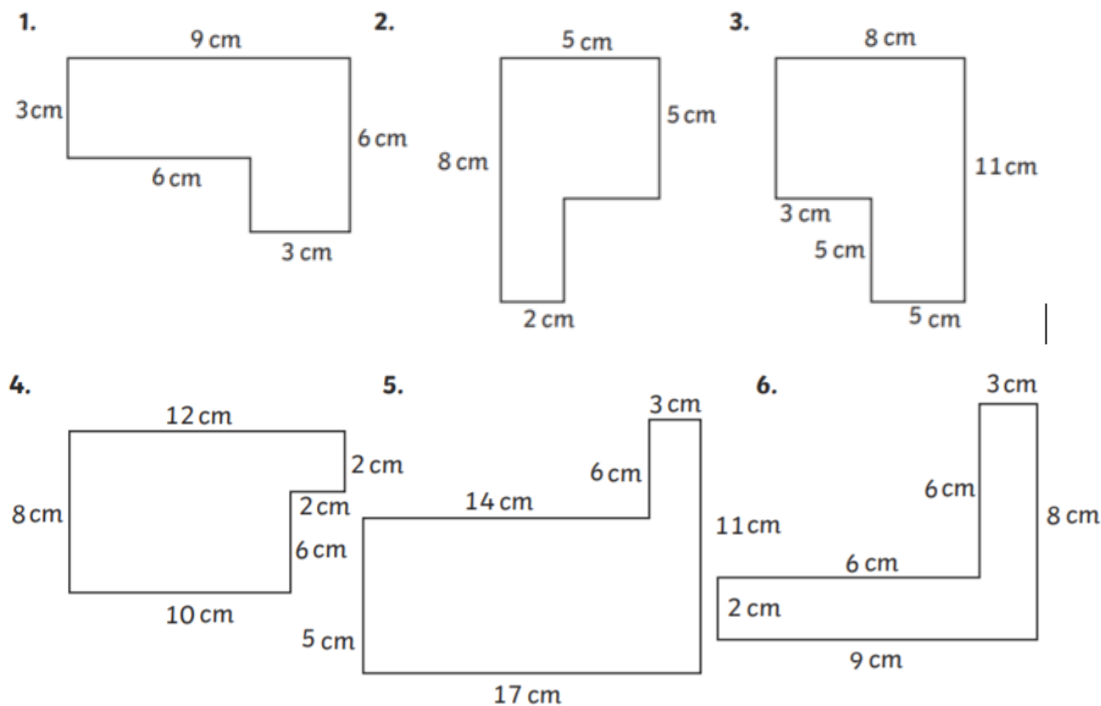


Now you can work out the area and perimeter of the two shapes and then add them together.

A good way of finding the area of a shape like this is to split the shape up into smaller shapes and then work out the area of each of these. The areas of the smaller shapes can then be added up to find the answer.

Mild

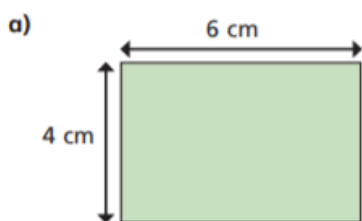
Perimeter Add the length of each side to find the perimeter of each shape. Don't forget to work out the lengths of the sides without a measurement! (Not to scale)



Area

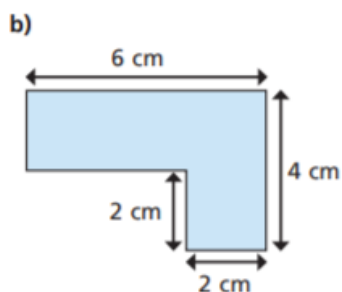
1. Area a: _____ cm² Area b: _____ cm² Total: _____ cm²	2. Area a: _____ cm² Area b: _____ cm² Total: _____ cm²
3. Area a: _____ cm² Area b: _____ cm² Total: _____ cm²	4. Area a: _____ cm² Area b: _____ cm² Total: _____ cm²
5. Area a: _____ cm² Area b: _____ cm² Total: _____ cm²	6. Area a: _____ cm² Area b: _____ cm² Total: _____ cm²

2 Work out the areas and perimeters of the shapes.



perimeter = cm

area = cm²



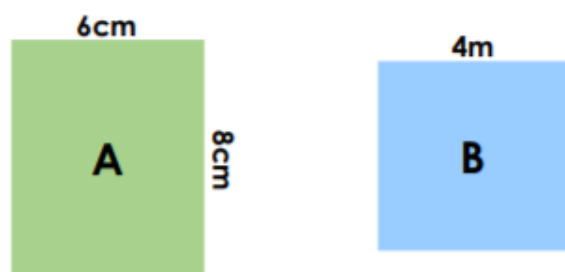
perimeter = cm

area = cm²

Which shape has an area and a perimeter that equal the same number?

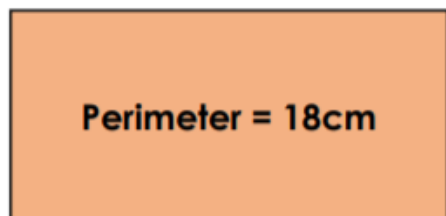


Which shape has an area and a perimeter that equal the same number?



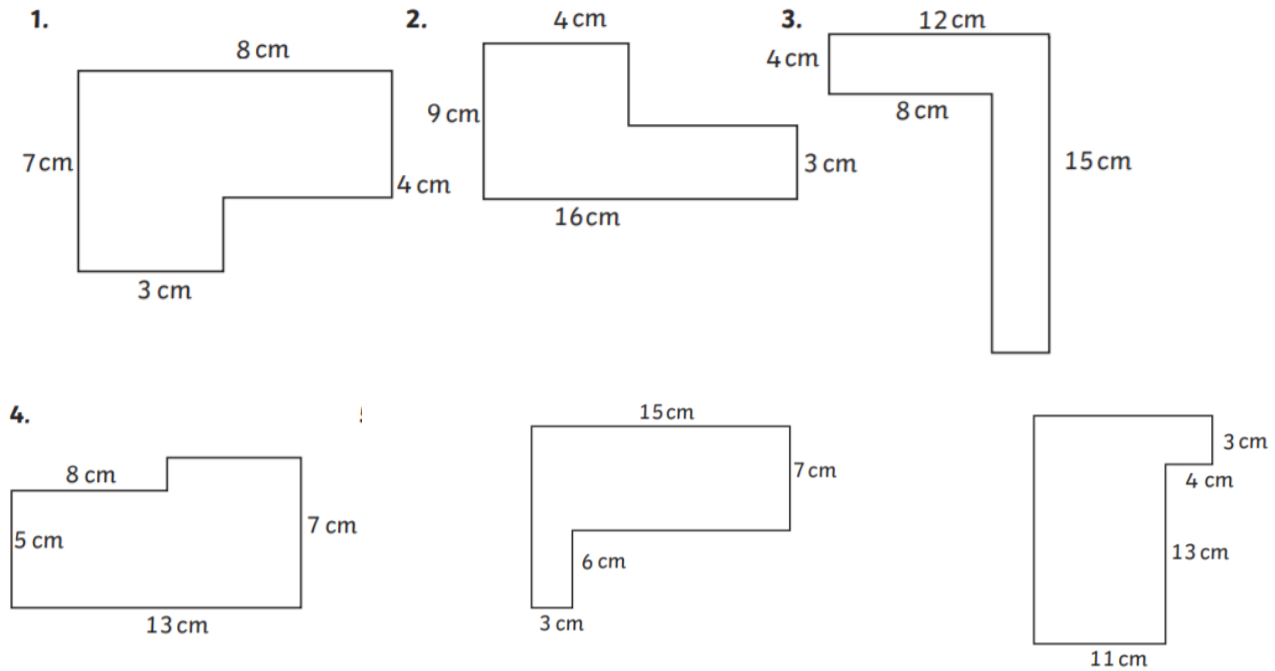
A shape has a perimeter of 18 cm. What is the largest area the shape could have?

What is the smallest area the shape could have?

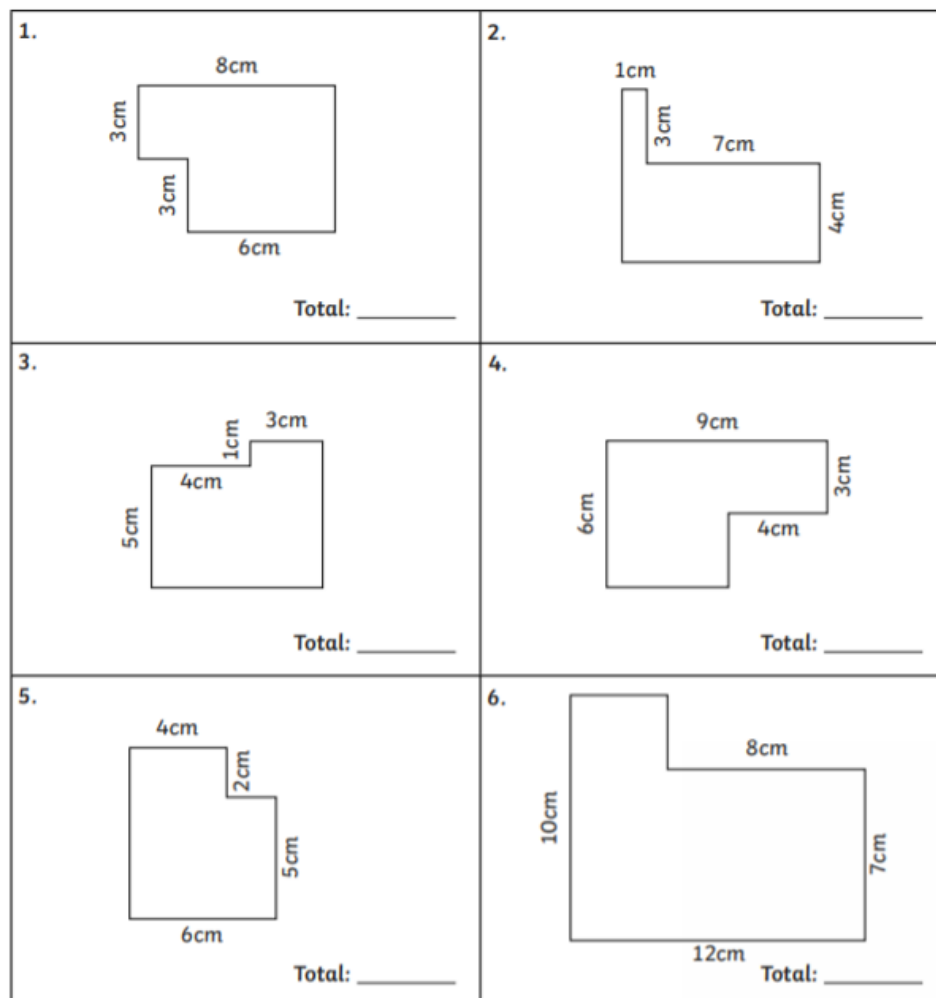


Medium

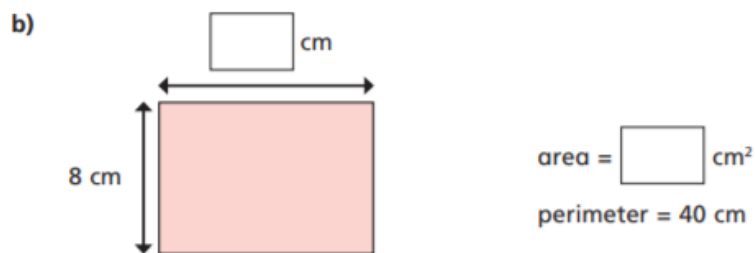
Add the length of each side to find the perimeter of each shape. Don't forget to work out the lengths of the sides without a measurement! (Not to scale)



Work out the area of each shape. Remember to split each shape into 2. Label each A and B and then remember to add the 2 areas together.

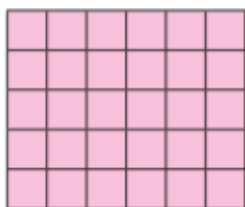


Work out the missing values.



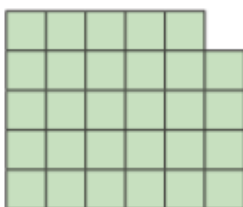
Work out the areas and perimeters of the shapes.

Shape A



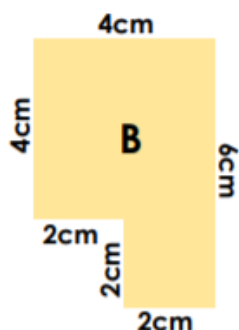
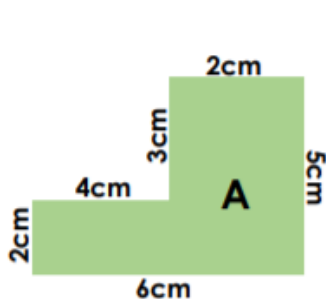
area = cm^2
perimeter = cm

Shape B



area = cm^2
perimeter = cm

Which shape has an area and a perimeter that equal the same number?



A shape has a perimeter of 82 cm . What is the largest area the shape could have?

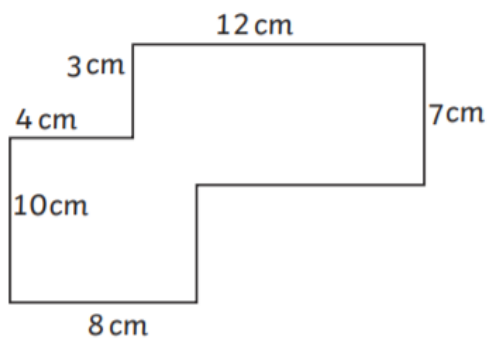
What is the smallest area the shape could have?

Perimeter = 82 cm

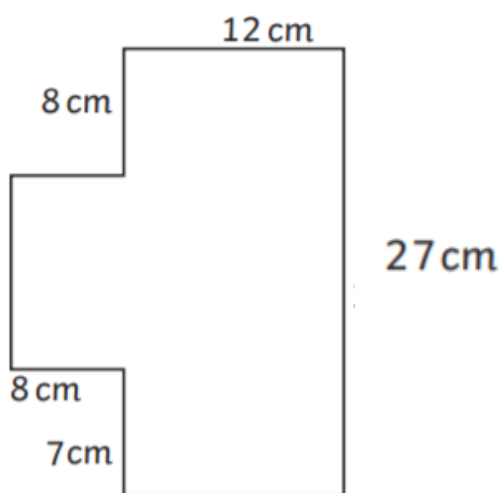
Spicy

Add the length of each side to find the perimeter of each shape. Don't forget to work out the lengths of the sides without a measurement! (Not to scale)

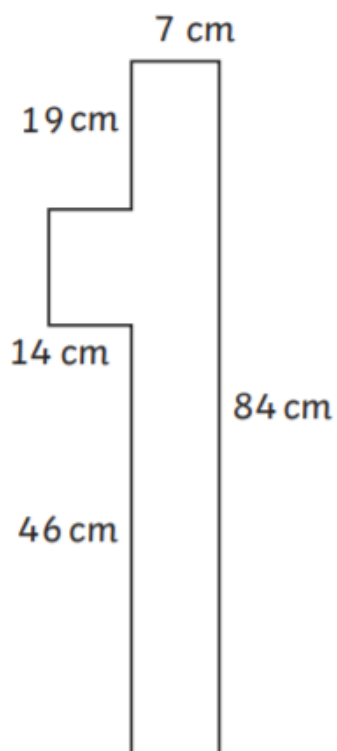
1)



2)

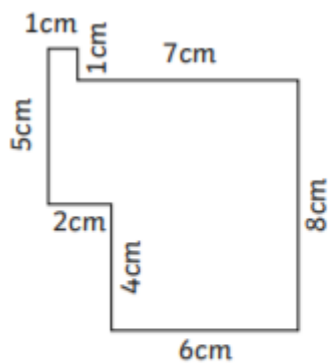


3)

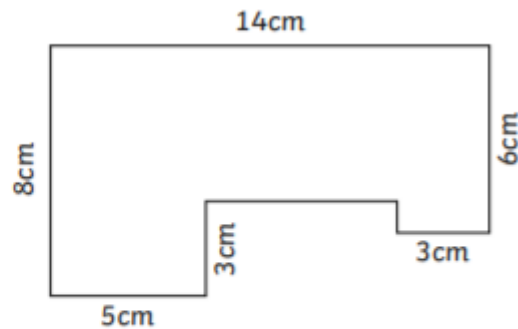


Work out the area of each shape. Remember to split up the shape and label each A, B and C and then remember to add the 3 areas together.

1) _____ 2)

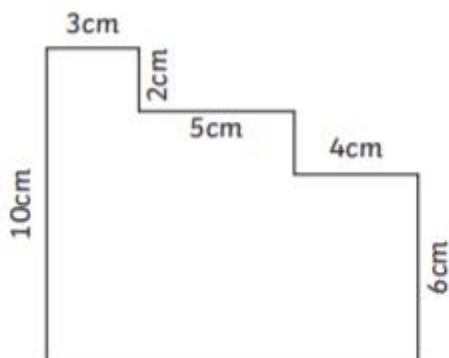


Total: _____

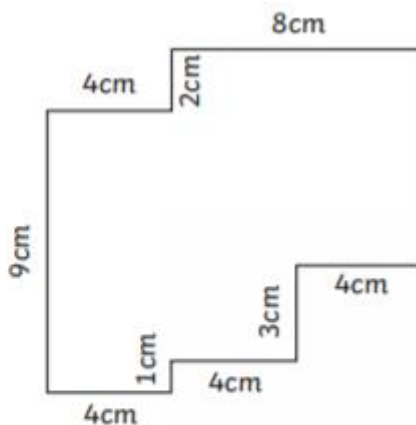


Total: _____

3) _____ 4)



Total: _____



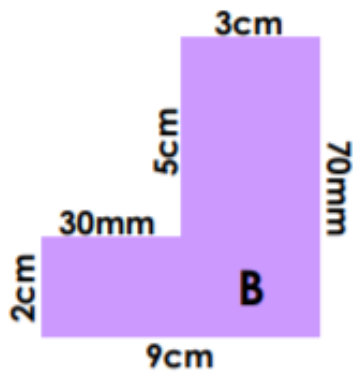
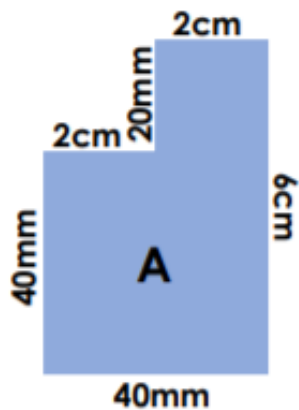
Total: _____

Note: Compound shapes are not to scale.

Solve the word problem. A shop floor measures 23m by 9m.

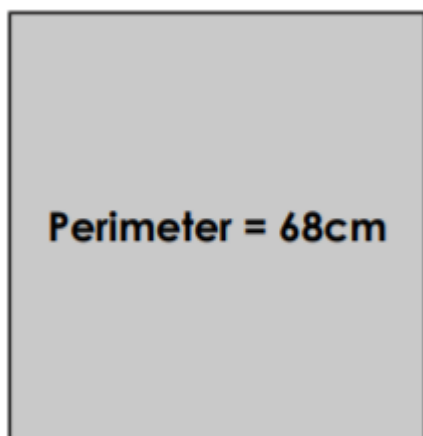
What is the area and perimeter of the shop?

Which shape has an area and a perimeter that equal the same number?



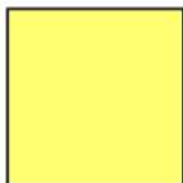
A shape has a perimeter of 68cm. What is the largest area the shape could have?

What is the smallest area the shape could have?



Cally says,

A square will always have the same area and perimeter.



Do you agree? Prove it.

Brendan says,

A rectangle will always have a different area and perimeter.



Do you agree? Prove it.

Tuesday

<https://www.bbc.co.uk/bitesize/tags/zncsscw/year-6-lessons/1>

<https://whiterosemaths.com/homelearning/year-6/>

Calculate the area of triangles

Fluent in 5

1	$7 \times 9 =$	
		
		 1 mark

2	$653 \div 100 =$	
		
		 1 mark

3	$18 \overline{) 693}$	
		
		 2 marks

4

$$\frac{2}{5} \times \frac{1}{3} =$$

☐

1 mark

5

$$4^3 =$$

☐

1 mark

6

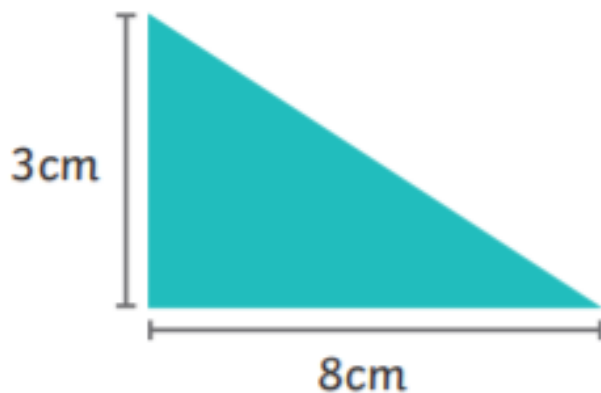
$$87.32 + 13.78 =$$

☐

1 mark

Area of Triangles

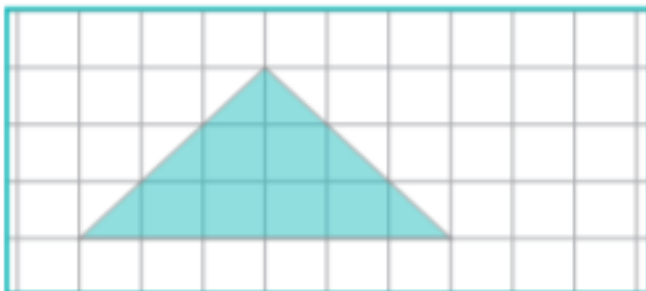
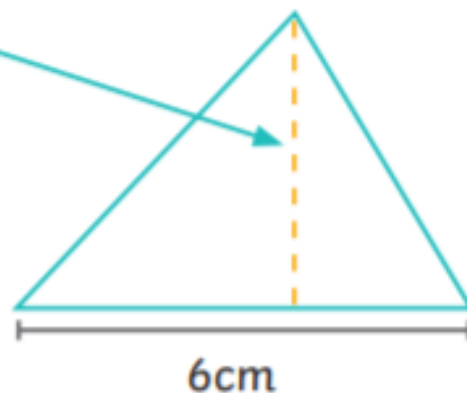
base $\times$ perpendicular height $\div 2$ = area of a triangle



$$8\text{cm} \times 3\text{cm} \div 2$$
$$\text{area} = 12\text{cm}^2$$

perpendicular height = 5cm

$$6\text{cm} \times 5\text{cm} \div 2$$
$$\text{area} = 15\text{cm}^2$$



Counting squares:

$$6 \text{ whole squares} = 6\text{cm}^2$$

$$6 \text{ half squares} = 3\text{cm}^2$$

$$6\text{cm}^2 + 3\text{cm}^2 = 9\text{cm}^2$$

$$\text{area} = 9\text{cm}^2$$

Using formula:

$$6\text{cm} \times 3\text{cm}$$

$$\div 2 = 9\text{cm}^2$$

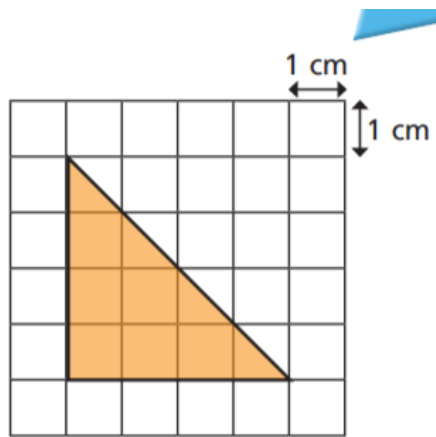
Mild

- 1 Complete the sentences to describe the triangle.

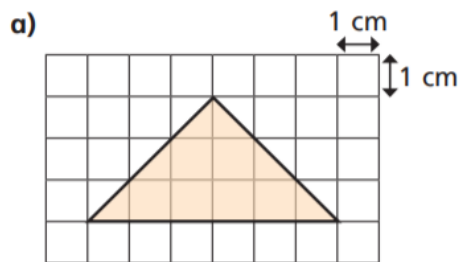
The triangle has full squares.

The triangle has half squares.

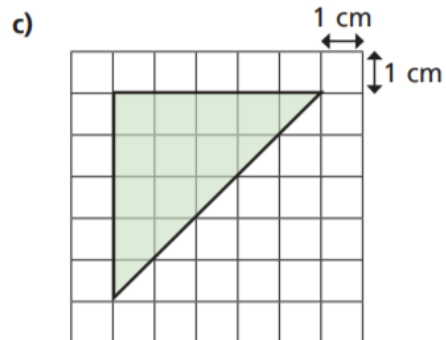
The area of the triangle is cm^2



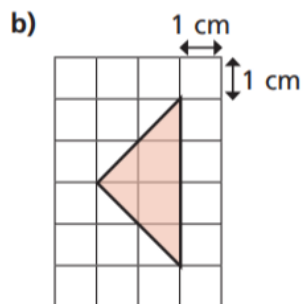
- 2 Count squares to work out the area of each triangle.



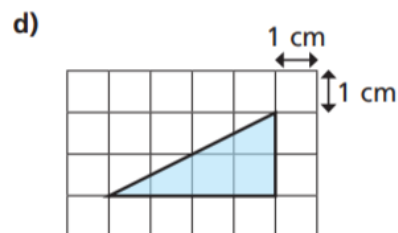
area = cm^2



area = cm^2

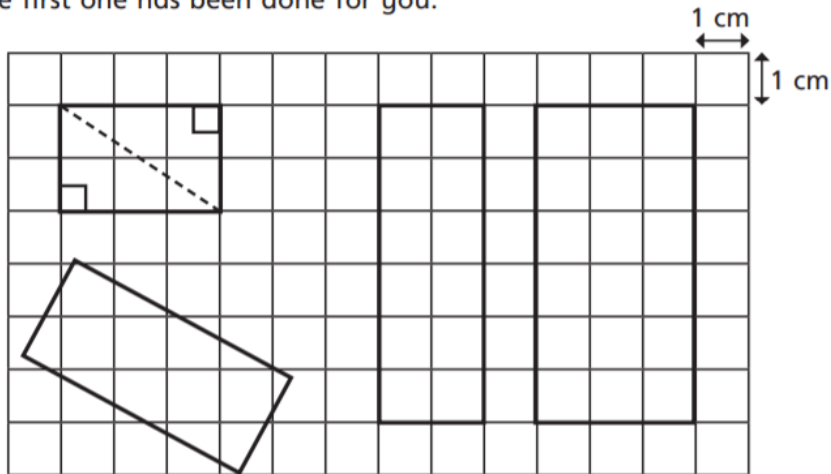


area = cm^2

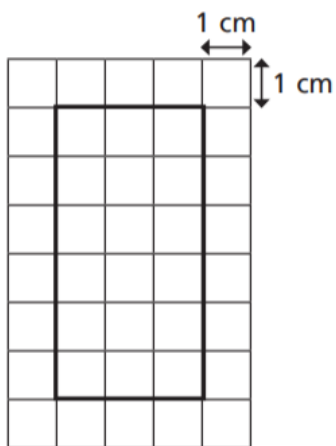


area = cm^2

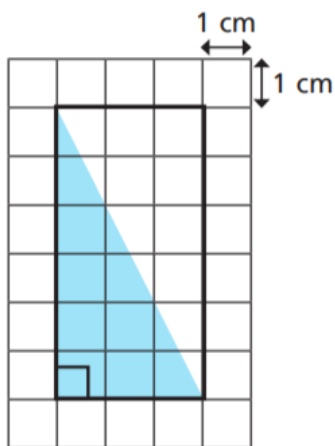
- 1 Divide each rectangle into two right-angled triangles.
The first one has been done for you.



- 2 a) Calculate the area of the rectangle and the triangle.

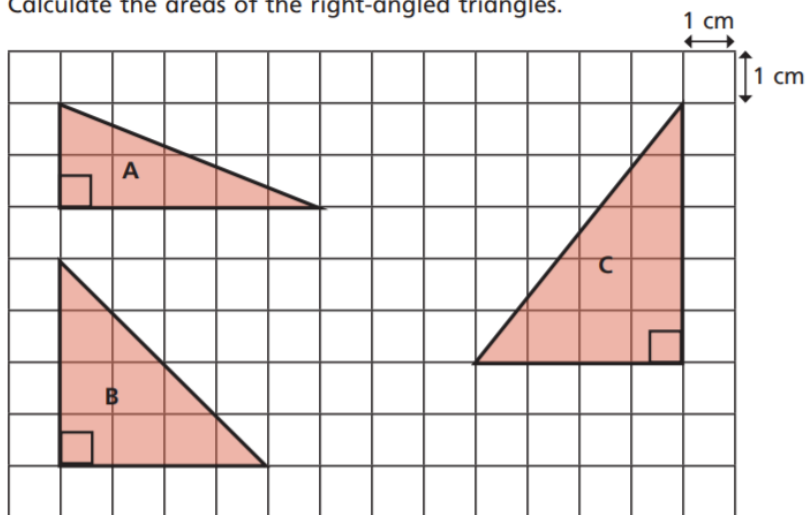


area = cm^2



area = cm^2

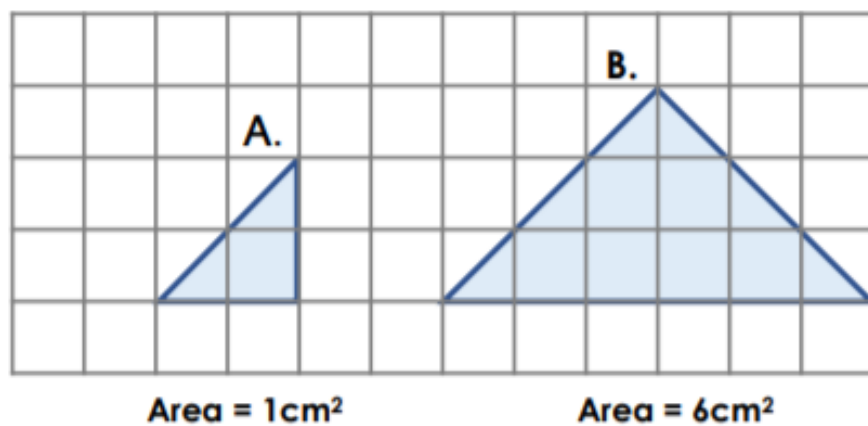
- 3 Calculate the areas of the right-angled triangles.



triangle A = cm^2 triangle C = cm^2

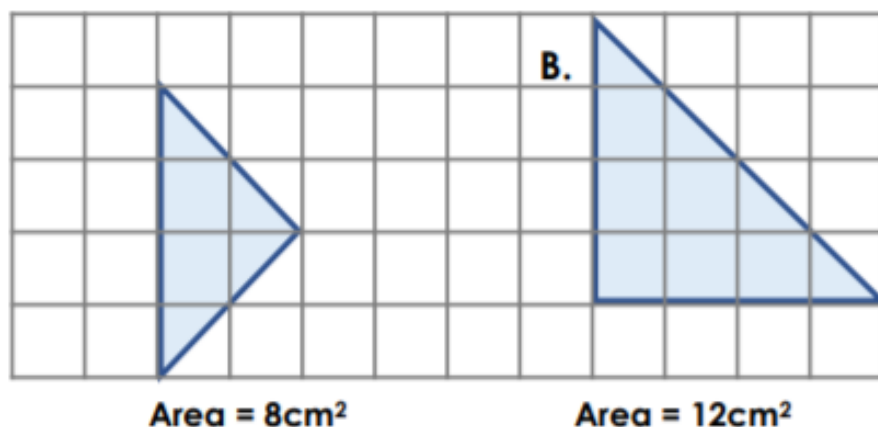
triangle B = cm^2

Ben has worked out the area of these triangles, however he's got them both wrong!



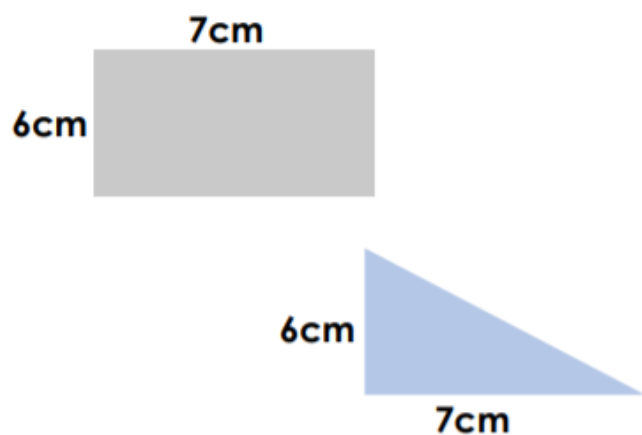
Correct and explain his mistakes.

Sadia has worked out the area of these triangles, however she's got them both wrong!

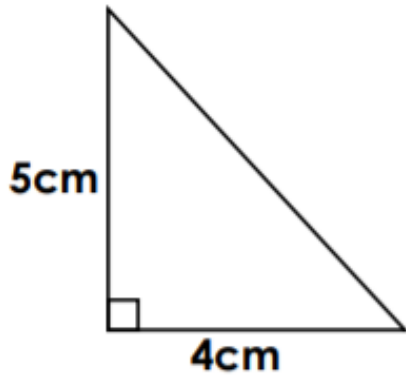


Correct and explain her mistakes.

True or false? The area of the triangle is 22cm^2 .



Match the triangle to the correct area.

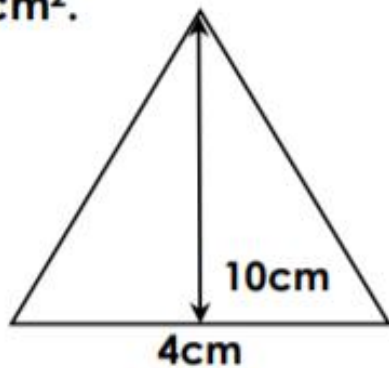


10cm²

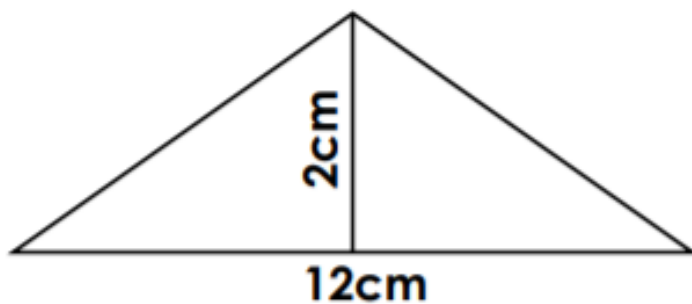
9cm²

8cm²

2a. True or false? The area of the triangle below is 40cm².

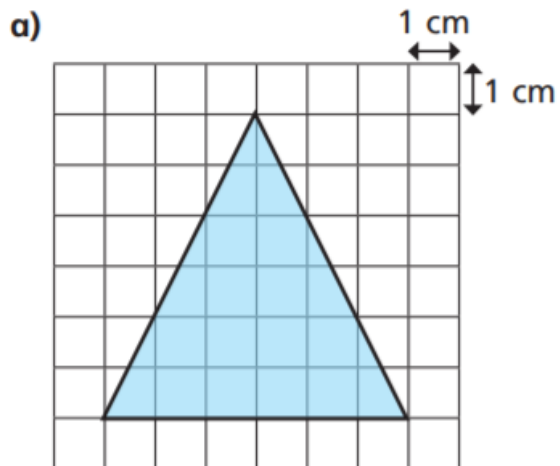


Calculate the area of the shape.

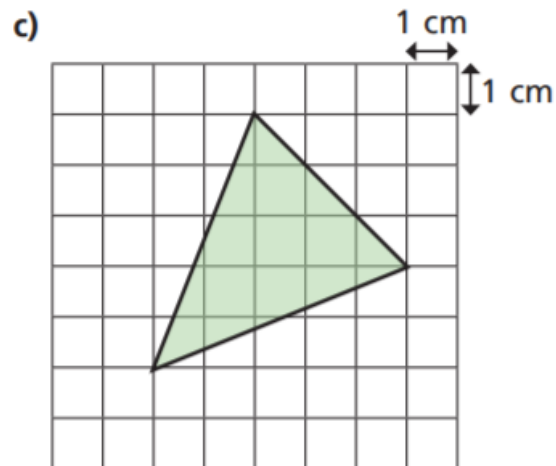


Medium

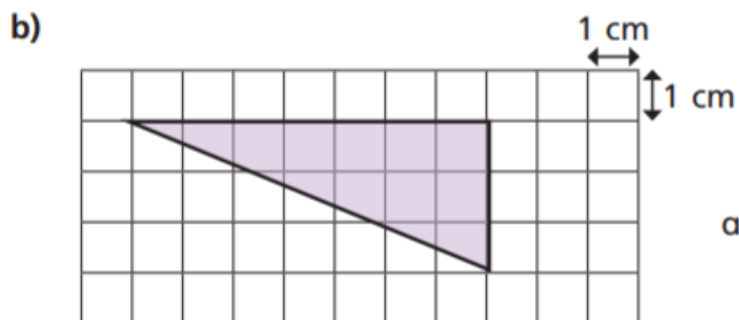
Count squares to estimate the area of each triangle.



area = cm^2

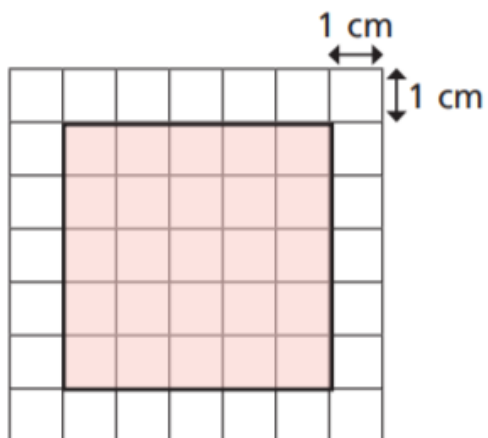


area = cm^2

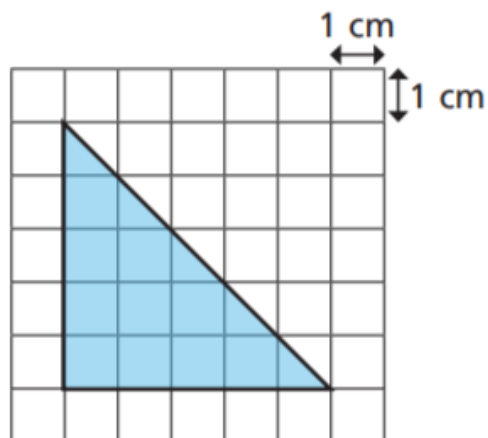


area = cm^2

a) Work out the areas of the shapes by counting squares.

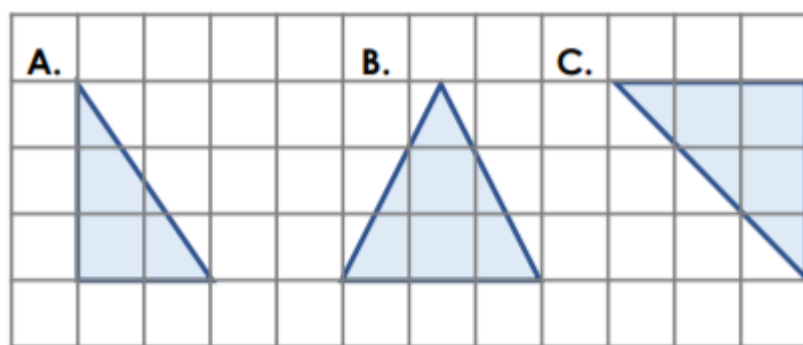


area = cm^2



area = cm^2

Jim has worked out the area of these triangles, however he's got them all wrong!



Area = 2cm^2

Area = 3cm^2

Area = 4cm^2

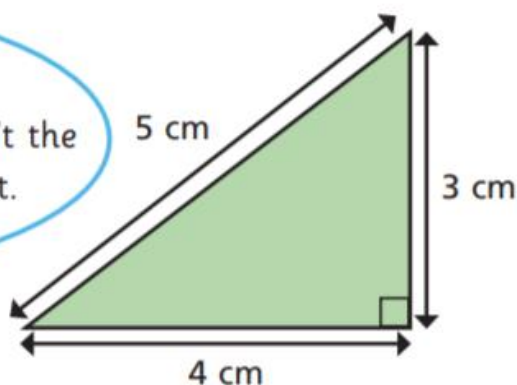
Correct and explain his mistakes.

Whitney is calculating the area of the triangle using the formula.

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

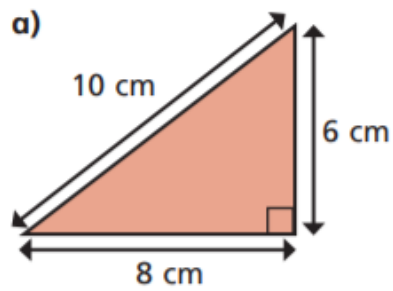
The area is $\frac{1}{2} \times 4 \times 3$.

You can ignore the 5 because it isn't the base or the perpendicular height.

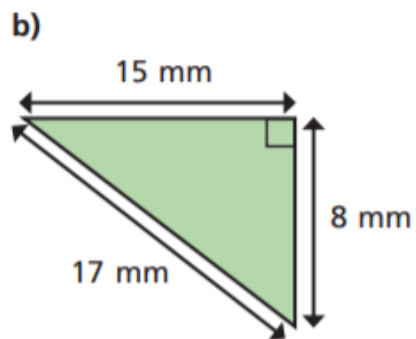


Do you agree with Whitney? _____

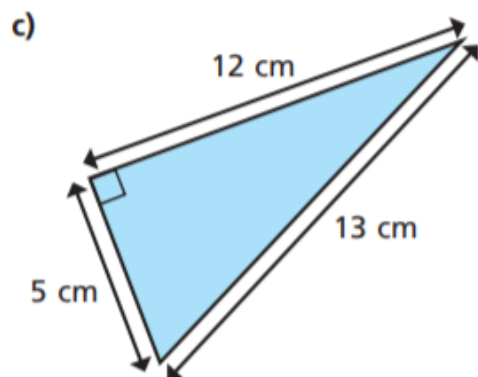
Insert the correct numbers into the formula to calculate the area of the triangle.



$$\frac{1}{2} \times \square \times \square = \square \text{ cm}^2$$

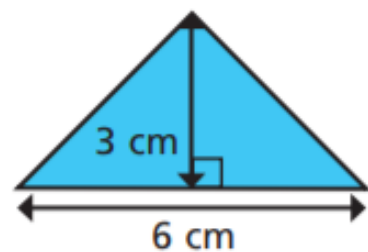


$$\frac{1}{2} \times \square \times \square = \square \text{ mm}^2$$



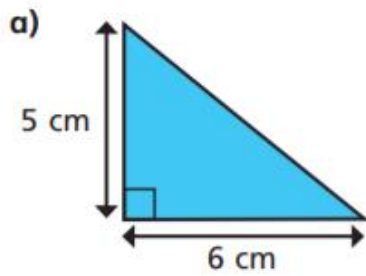
$$\frac{1}{2} \times \square \times \square = \square \text{ cm}^2$$

Calculate the area of the triangle.

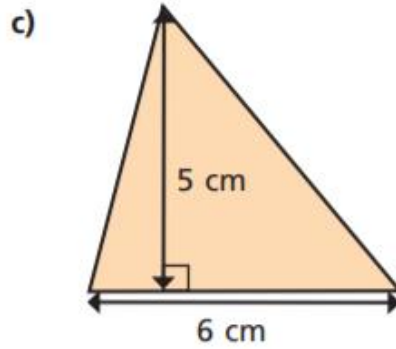


area = $\square \text{ cm}^2$

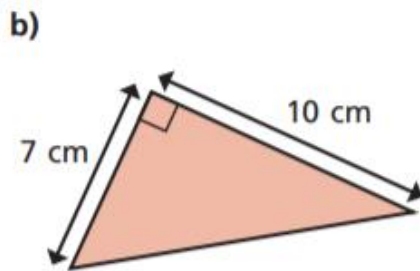
Calculate the area of the triangles.



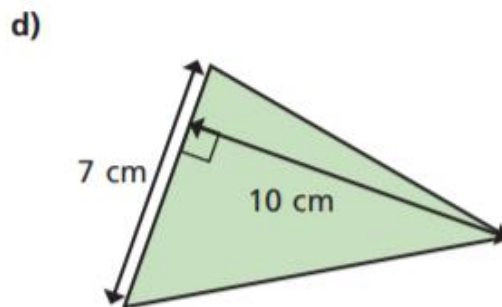
area = cm²



area = cm²

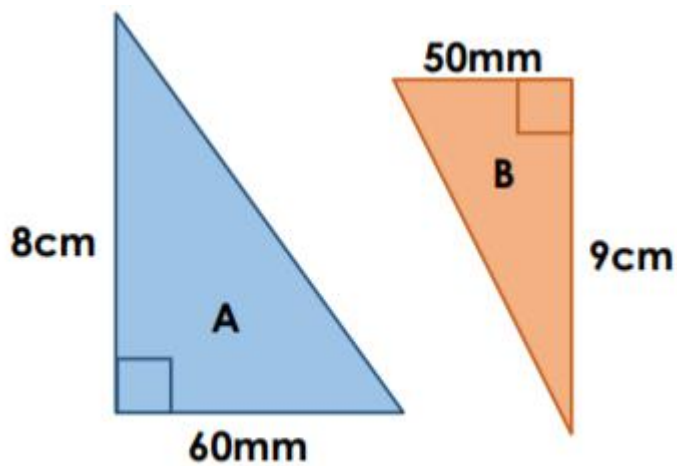


area = cm²



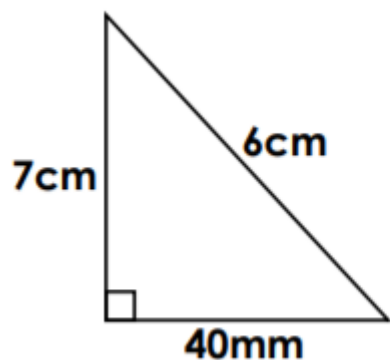
area = cm²

James thinks the area of Triangle A is smaller than the area of Triangle B.



Is James correct? Prove it.

Match the triangle to the correct area.

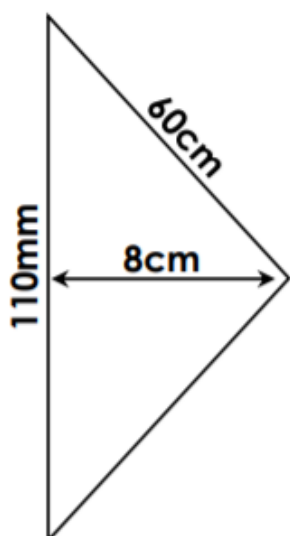


13cm²

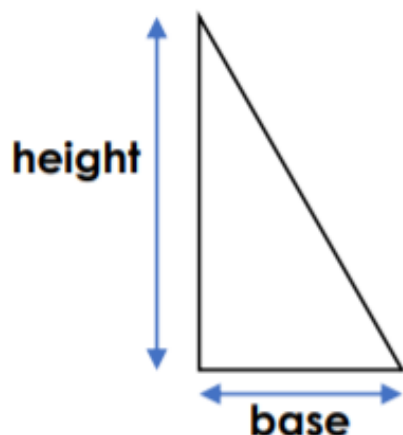
14cm²

15cm²

Amy says the area of the triangle below is 88 cm². Do you agree? Explain your answer.



The area of the triangle is 24 cm². What could the measurements of the base and height of the triangle be? Use the cards to give 3 possible answers.



60mm

12cm

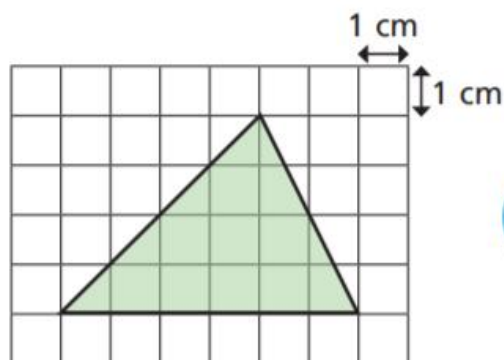
8cm

40mm

16cm

30mm

Spicy



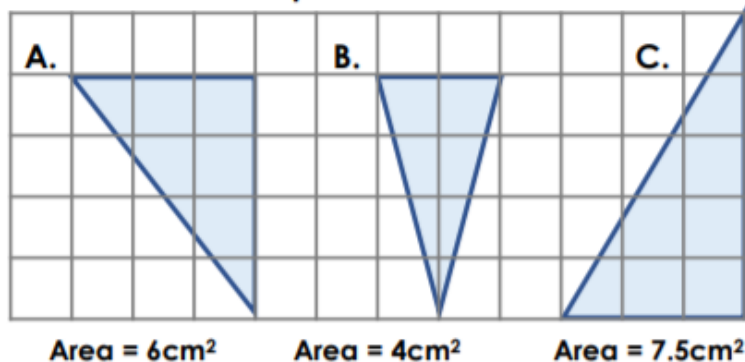
I estimate the size of the triangle to be about 16 cm^2



Do you agree with Eva's estimate? _____

Ali has worked out the area of these triangles, however he's got them all wrong!

1 square = 3 cm^2



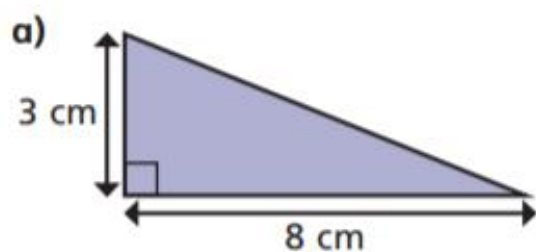
Area = 6 cm^2

Area = 4 cm^2

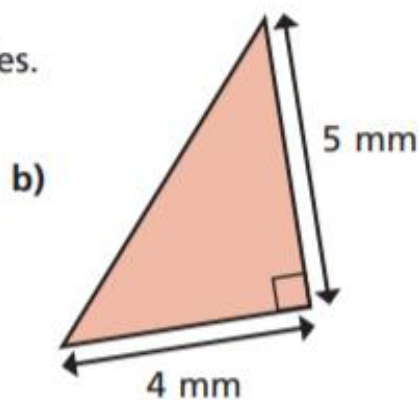
Area = 7.5 cm^2

Correct and explain his mistakes.

Calculate the areas of the triangles.

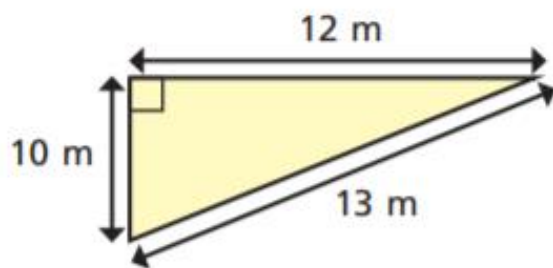


area = cm^2



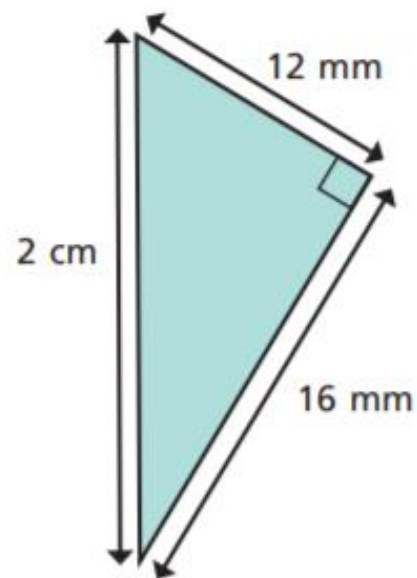
area = mm^2

c)



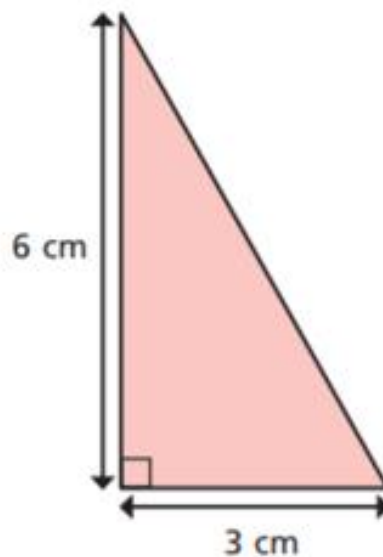
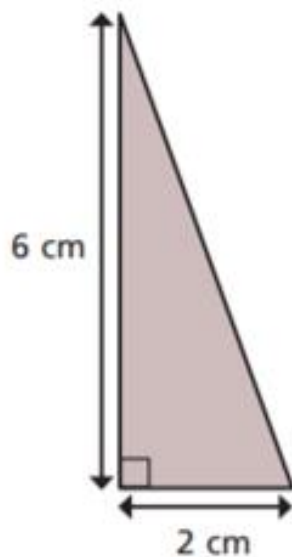
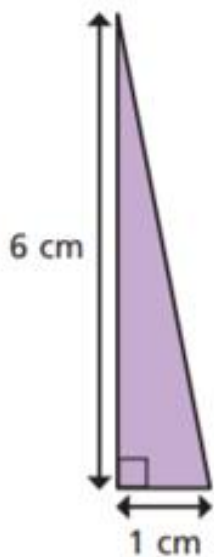
area = m²

d)



area = mm²

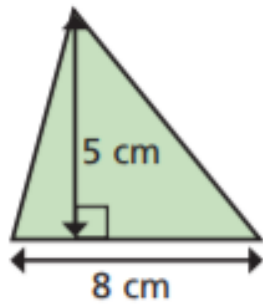
The width of the right-angled triangles is increasing by 1 cm.



Investigate the pattern for the areas.

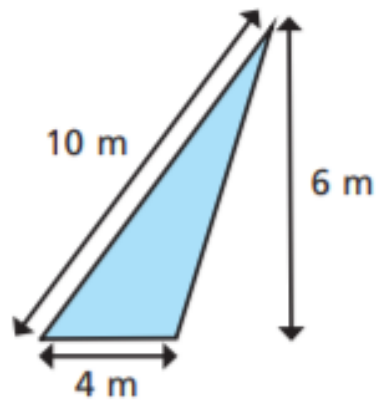
Calculate the area of the triangles.

a)



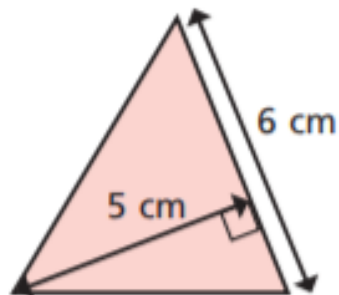
area = cm^2

d)



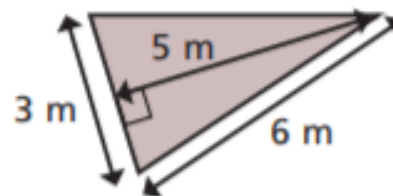
area = m^2

b)



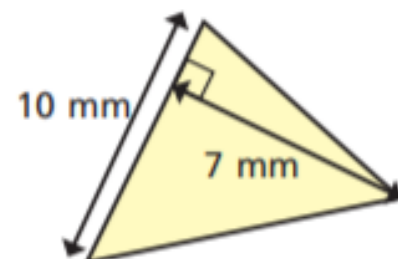
area = cm^2

e)



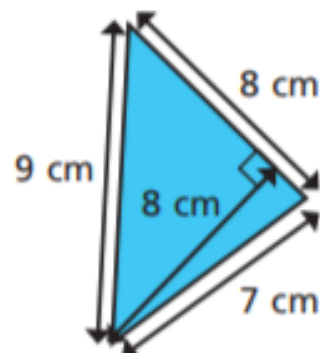
area = m^2

c)



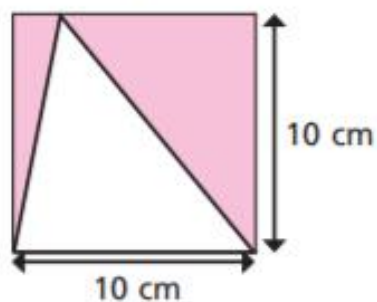
area = mm^2

f)



area = cm^2

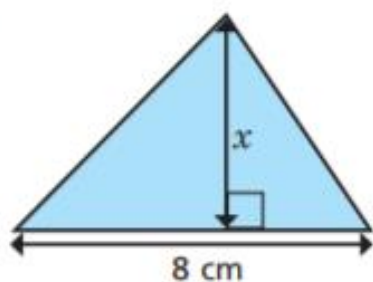
Find the area of the shaded region.



area = cm^2

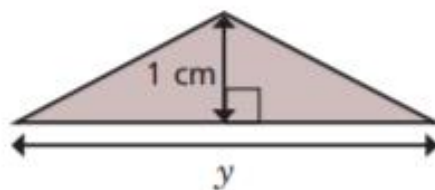
The area of each triangle is 12 cm^2 . Find the missing lengths.

a)



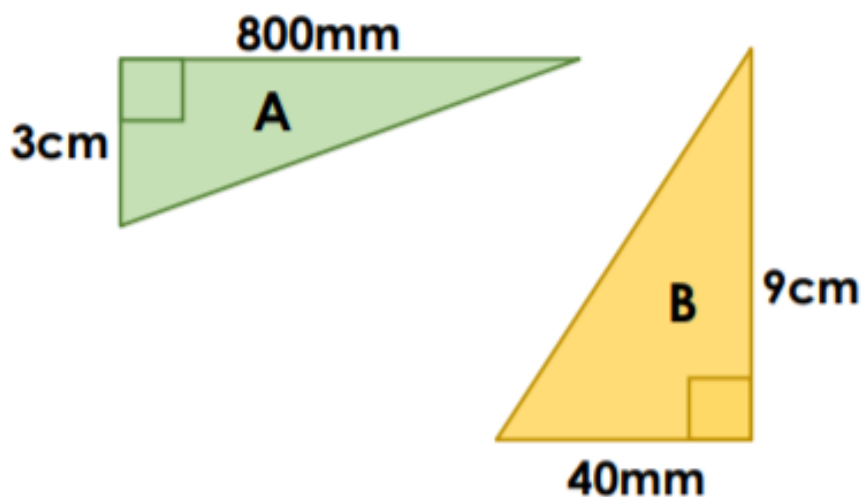
$x =$ cm

b)

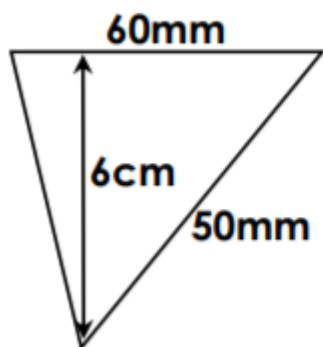


$y =$ cm

Calculate the difference between the area of these 2 triangles.



Match the triangle to the correct area.

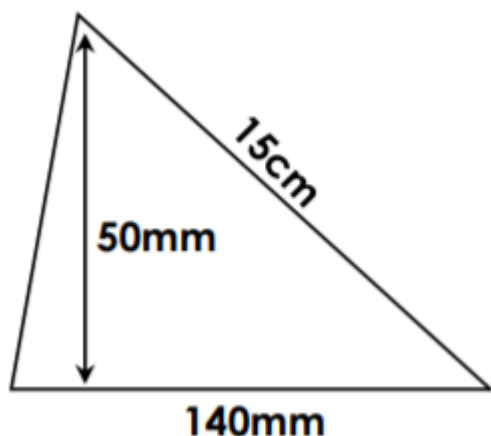


16cm²

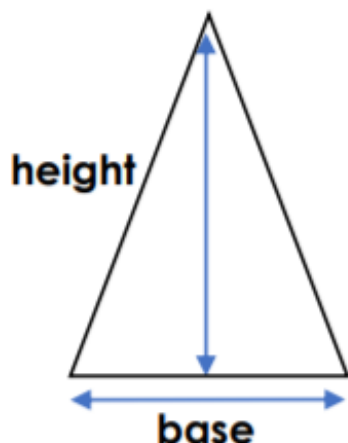
17cm²

18cm²

Eddie says the area of the triangle below is 35 cm². Do you agree? Explain your answer.



The area of the triangle is 36 cm². What could the measurements of the base and height of the triangle be? Use the cards to give 3 possible answers.



80mm

6cm

30mm

9cm

12cm

24cm

Wednesday

<https://www.bbc.co.uk/bitesize/tags/zncsscw/year-6-lessons/1>

<https://whiterosemaths.com/homelearning/year-6/>

Calculate the area of parallelograms

Fluent in 5

1	$65 + 85 =$	
		
		 1 mark

2	$9,932 - 3,876 =$	
		
		 1 mark

3	$\frac{2}{3} + \frac{2}{3} =$	
		
		 1 mark

4

$$653 \div 21 =$$

☐

2 marks

5

$$+ 200 = 860$$

☐

1 mark

6

$$\frac{4}{7} \times \frac{1}{2} =$$

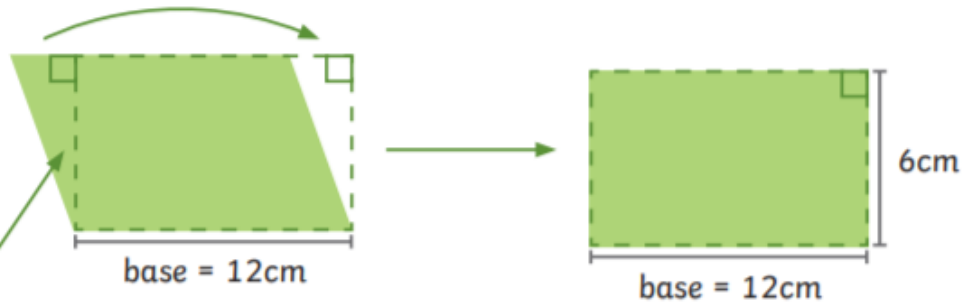
☐

1 mark

Area of Parallelograms

base $\times$ perpendicular height = area of a parallelogram

A parallelogram can be transformed into a rectangle.



perpendicular height = 6cm

$$12\text{cm} \times 6\text{cm} = 72\text{cm}^2$$

What do you notice about
the area of a rectangle and
a parallelogram?



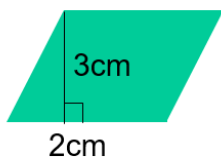
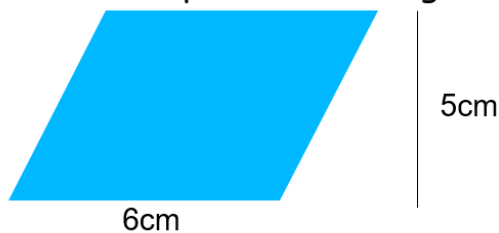
What formula can you use
to work out the area of a
parallelogram?



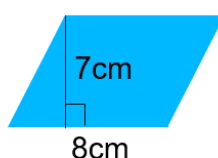
Formula

So the formula for the area of a parallelogram is:

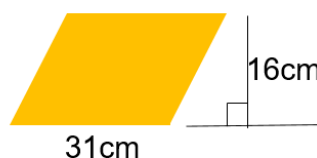
Base $\times$ Perpendicular Height



$$6\text{cm}^2$$



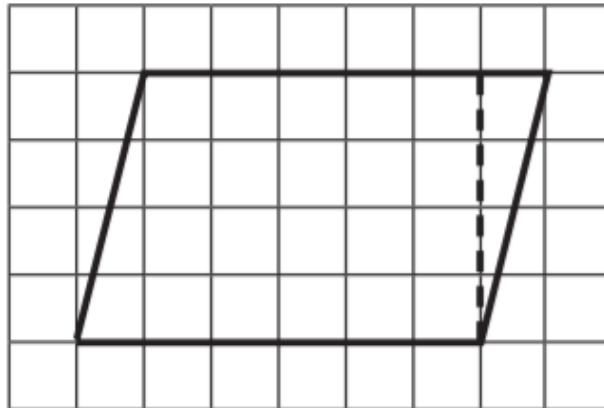
$$56\text{cm}^2$$



$$496\text{cm}^2$$

Mild

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



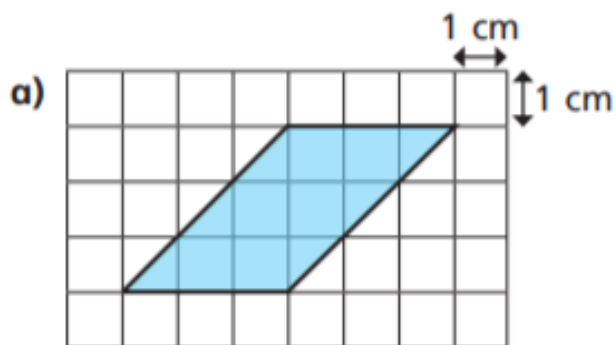
- a) Create a rectangle by cutting off the right-angled triangle and moving it.

- b) Complete the sentences.

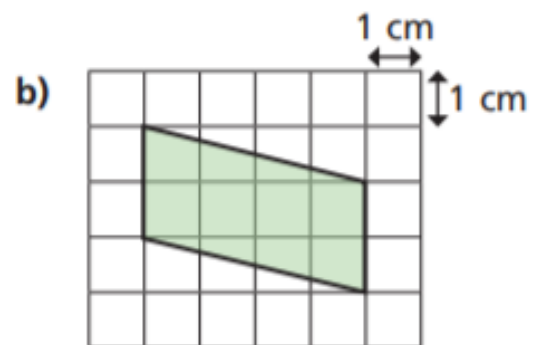
The area of the rectangle is squares.

The area of the parallelogram is squares.

- 2 Calculate the areas of the parallelograms.



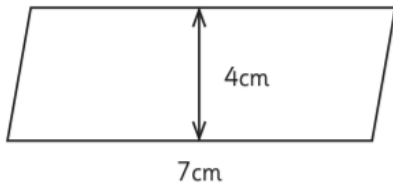
area = cm^2



area = cm^2

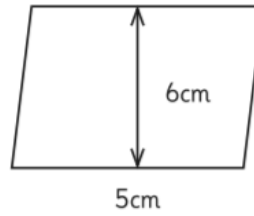
Calculate the area of each parallelogram.

1.



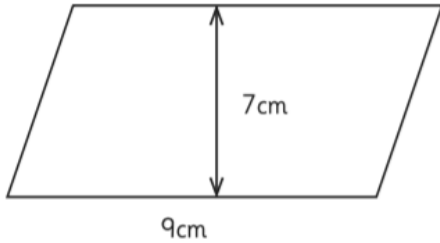
Area =

2.



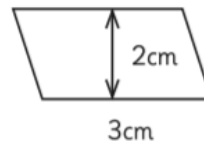
Area =

3.



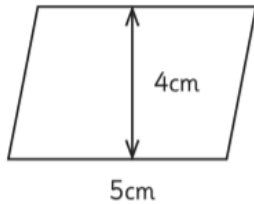
Area =

4.



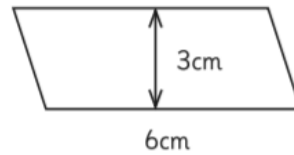
Area =

5.



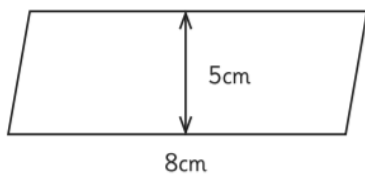
Area =

6.



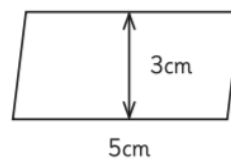
Area =

7.



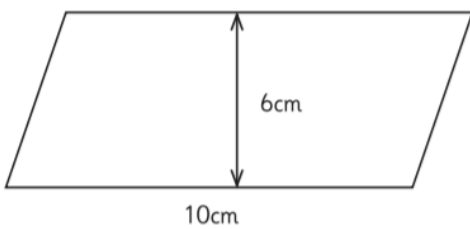
Area =

8.



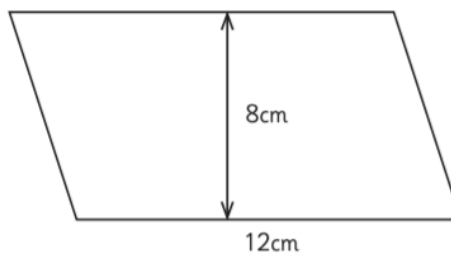
Area =

9.



Area =

10.



Area =

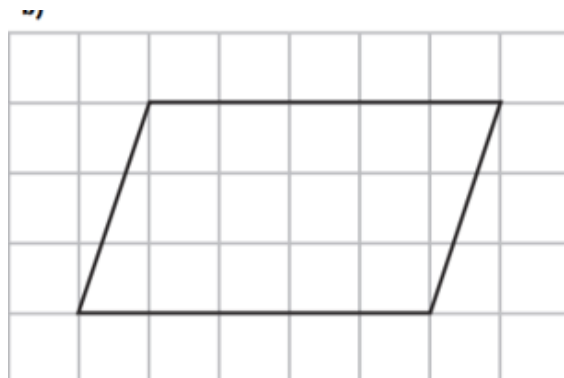
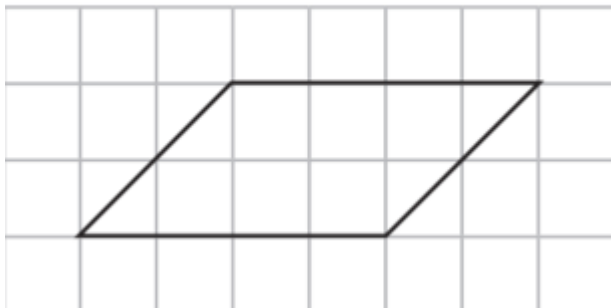
Medium

Use the formula **base $\times$ height** to calculate the area of a parallelogram.

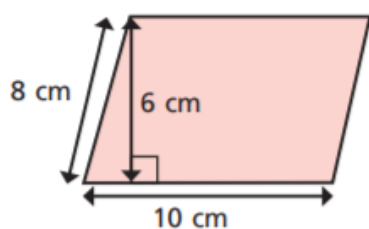


1) Find the area of each parallelogram.

a)



Huan is finding the area of the parallelogram.



$$10 \times 8 = 80 \text{ cm}^2$$

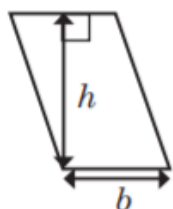
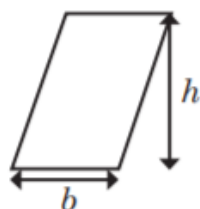
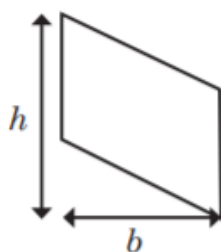
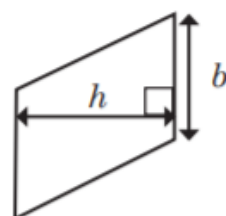
a) What mistake has Huan made?

b) What is the correct answer?

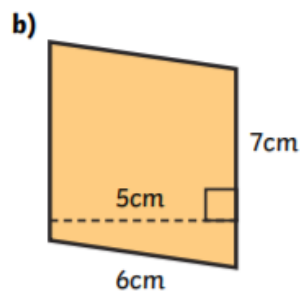
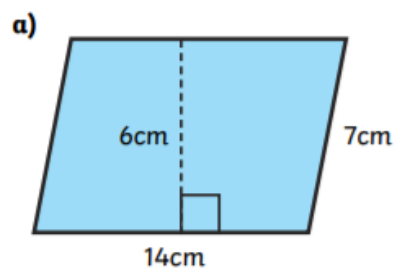
area = cm^2

Esther has labelled the bases and heights for four parallelograms.

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

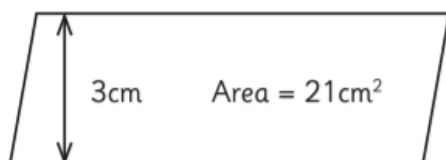
☐☐☐☐

Calculate the area of each parallelogram.



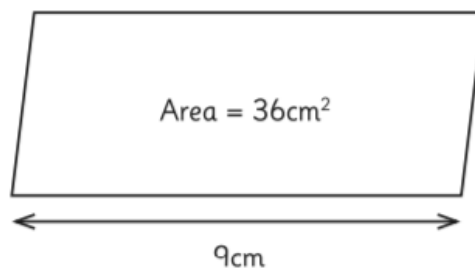
Calculate the **base** or **height** of each parallelogram from the measurements given.

1.



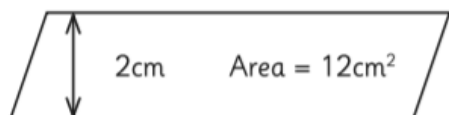
Base =

2.



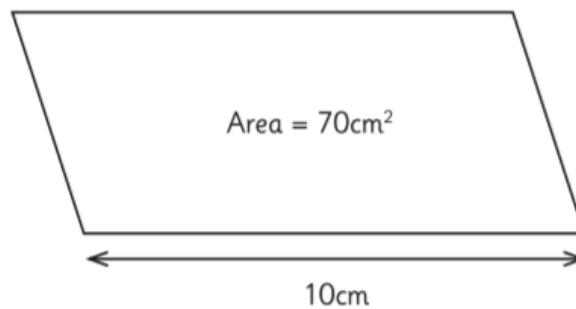
Height =

3.



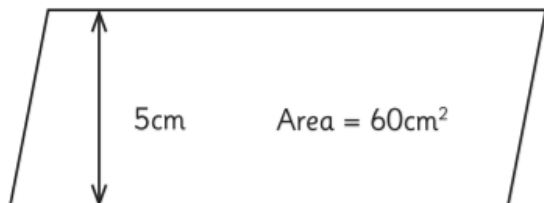
Base =

4.



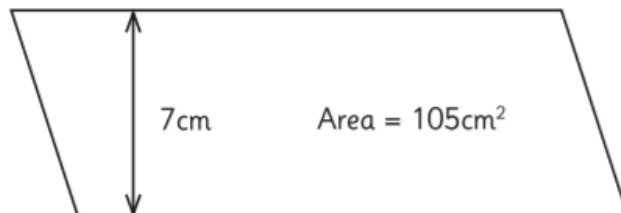
Height =

5.



Base =

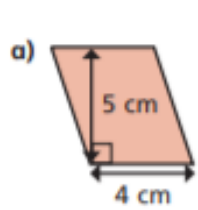
6.



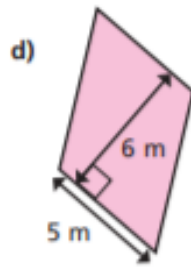
Base =

Spicy

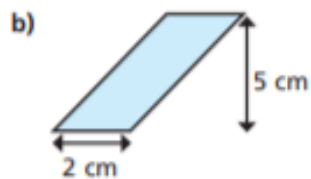
Calculate the areas of the parallelograms.



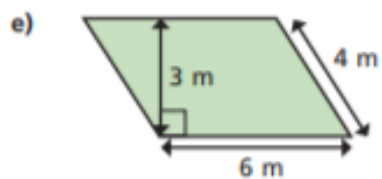
area = cm^2



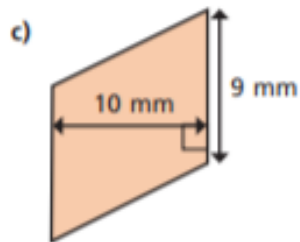
area = m^2



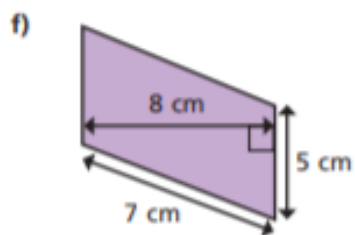
area = cm^2



area = m^2

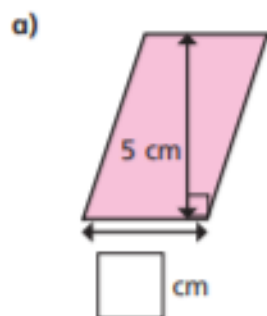


area = mm^2

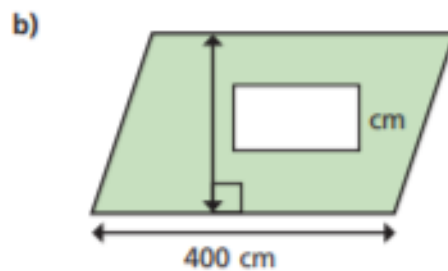


area = cm^2

Find the missing lengths.

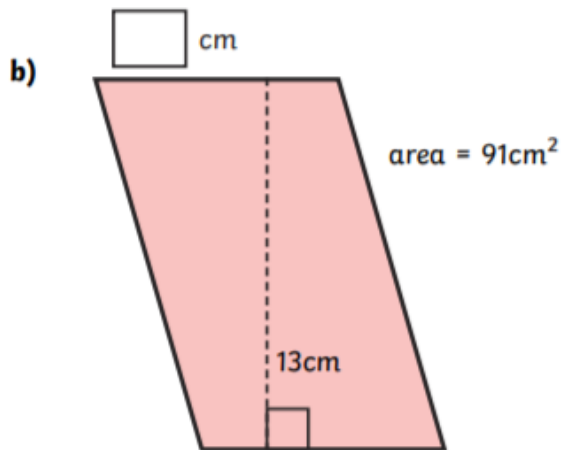
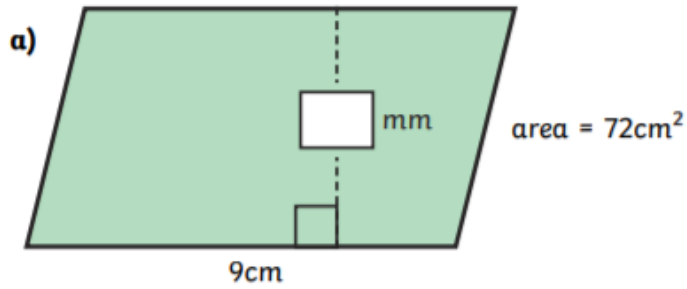


area = 15 cm^2

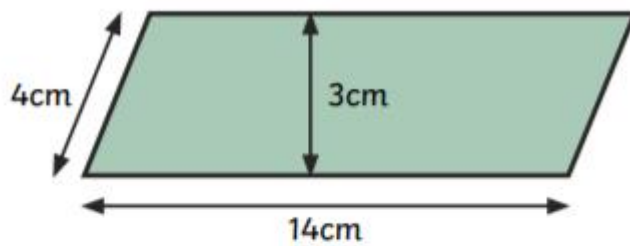


area = 12 m^2

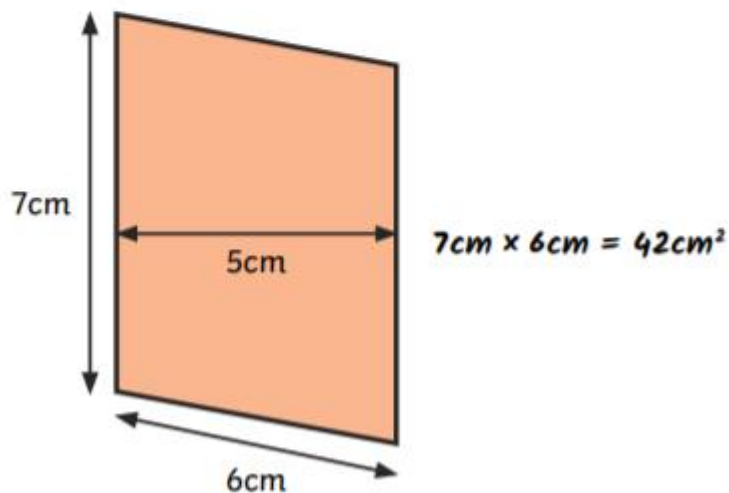
Calculate the missing measurements for these parallelograms.



Hamish has worked out that each parallelogram has an area of 42cm^2 .



$$14\text{cm} \times 3\text{cm} = 42\text{cm}^2$$



Do you agree with Hamish? Explain why.

Thursday

<https://www.bbc.co.uk/bitesize/tags/zncsscw/year-6-lessons/1>

<https://whiterosemaths.com/homelearning/year-6/>

Calculate, estimate and compare volume of cubes

Fluent in 5

1	$718.12 + 34.67 =$	
		
		1 mark

2	$5.6 + 1.4 =$	
		
		1 mark

3	$54 \times 21 =$	
		
		2 marks

4

$$983 - 183 =$$

☐

1 mark

5

$$5^3 =$$

☐

1 mark

6

$$\frac{3}{4} \text{ of } 80 =$$

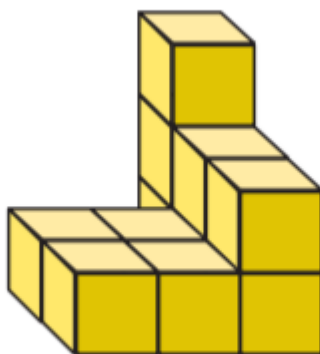
☐

1 mark

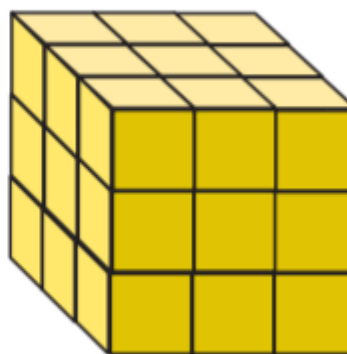
Volume - Counting Cubes



$$= 1\text{cm}^3$$



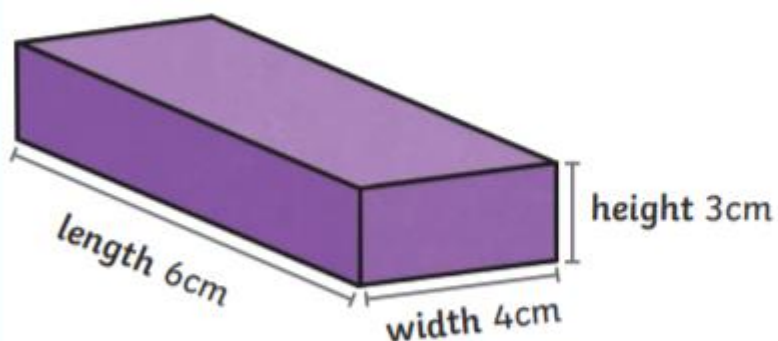
$$11\text{cm}^3$$



$$27\text{cm}^3$$

Volume of Cuboids

length $\times$ width $\times$ height = volume of a cuboid



Multiply dimensions in **any** order:

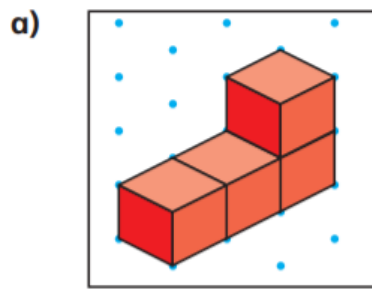
$$3\text{cm} \times 6\text{cm} \times 4\text{cm}$$

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

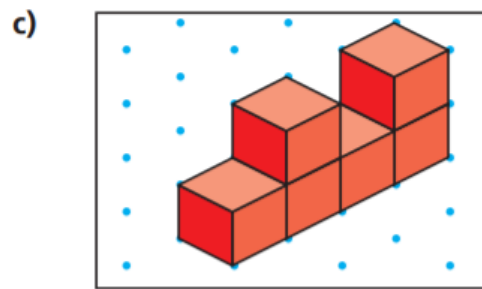
Mild

How many cubes are needed to make each shape?

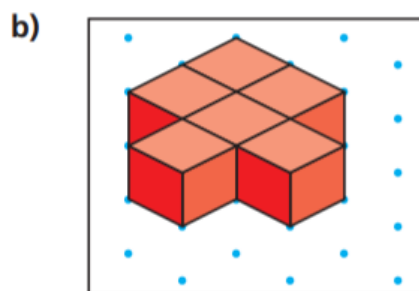
There are no hidden cubes.



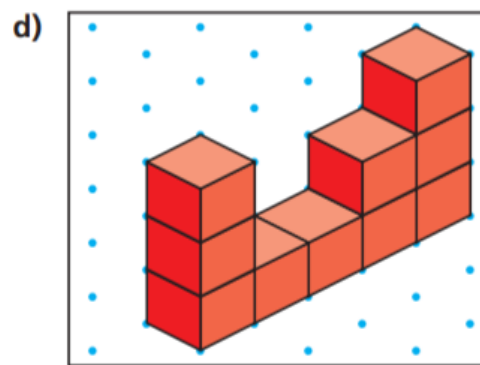
cubes



cubes

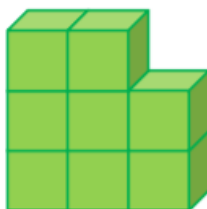


cubes



cubes

1a. Match the shape to its volume in cm^3 .

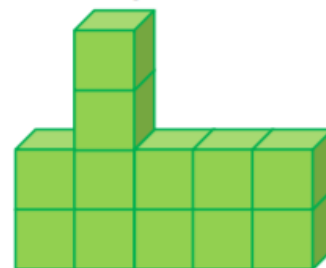


8cm³

24cm³

24cm³

1b. Match the shape to its volume in cm^3 .



12cm³

36cm³

12cm³

2a. True or false? The volume of this shape is 6cm.

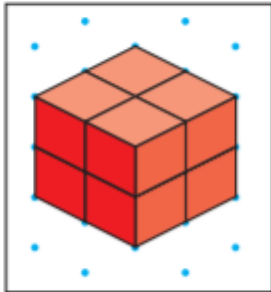


2b. True or false? The volume of this shape is 15cm³.



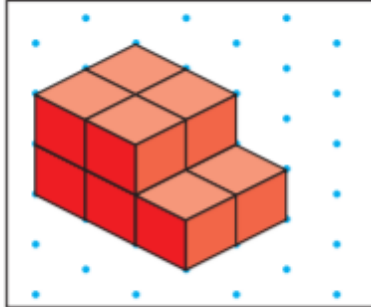
How many cubes are needed to make the following shapes?

a)



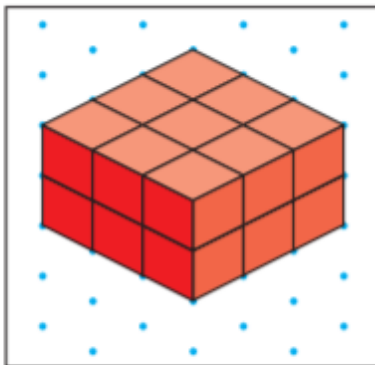
cubes

d)



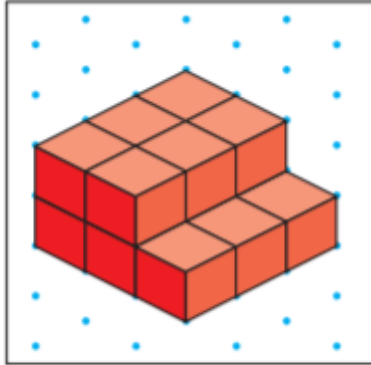
cubes

b)



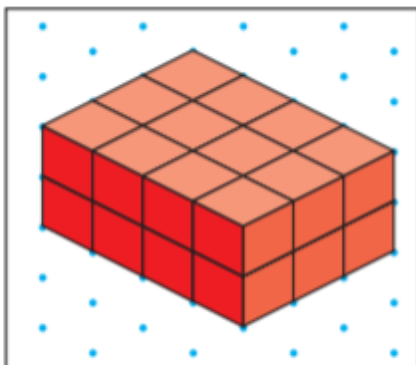
cubes

e)



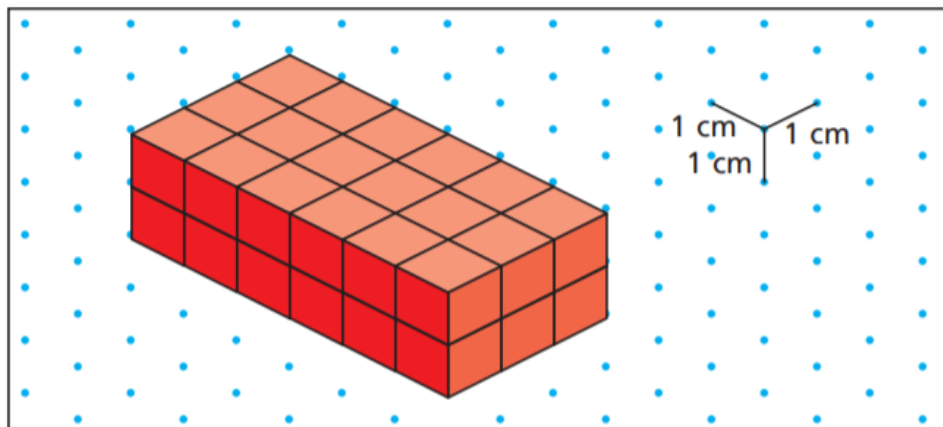
cubes

c)



cubes

Here is a cuboid made up of cubes.



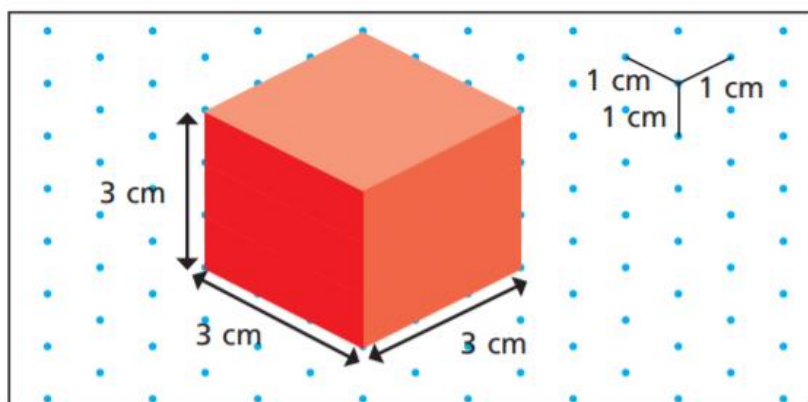
a) What is the volume of the cuboid?

volume = cm^3

2 Find the volume of the cuboids.

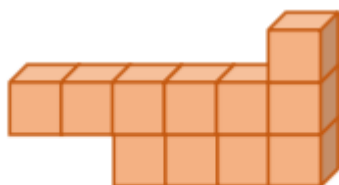
You can make them with cubes if it helps.

a)



volume = cm^3

Look at the shape below.

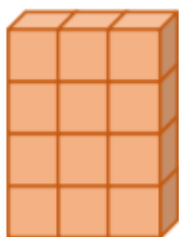


Which of these shapes has the same volume in cubic units?

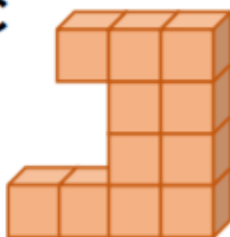
A



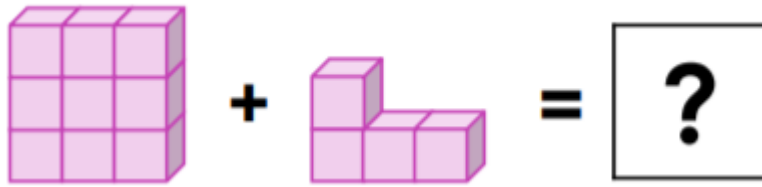
B



C

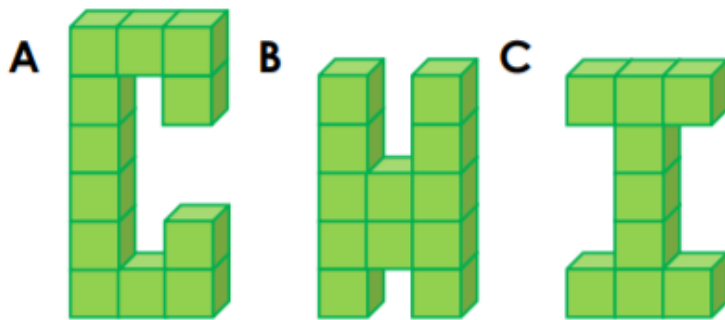


If the shapes below were combined, what would their volume be altogether?



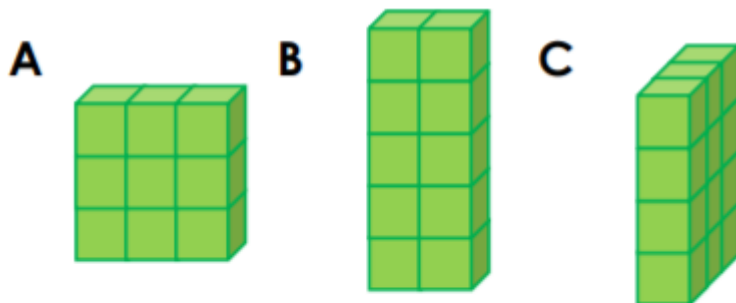
Hint: each cube has a volume of 1cm^3 .

Find the odd one out. Each cube has a volume of 1cm^3 .



Explain your answer.

Find the odd one out. Each cube has a volume of 1cm^3 .

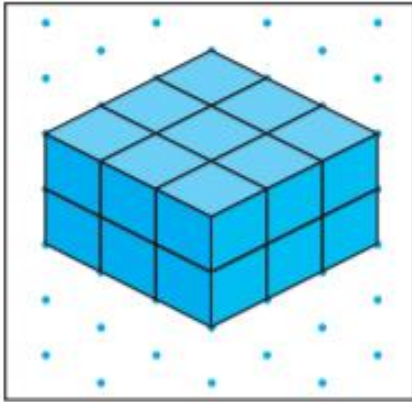


Explain your answer.

Medium



There are 14 cubes in the cuboid.



Explain Teddy's mistake.

If one cube is worth 1 cm^3 , what are the volumes of the shapes?

a)



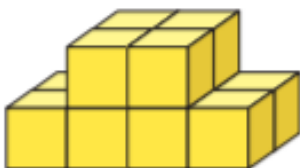
volume = cm^3

b)



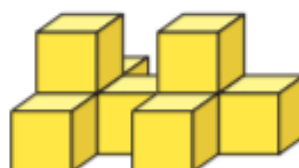
volume = cm^3

c)



volume = cm^3

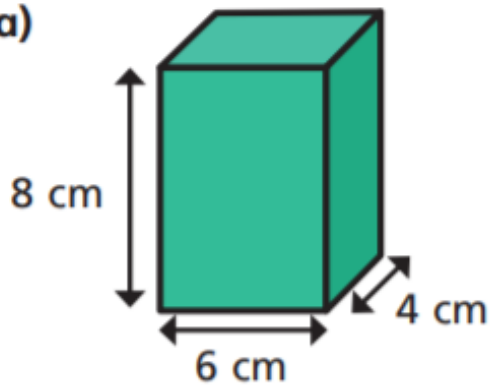
d)



volume = cm^3

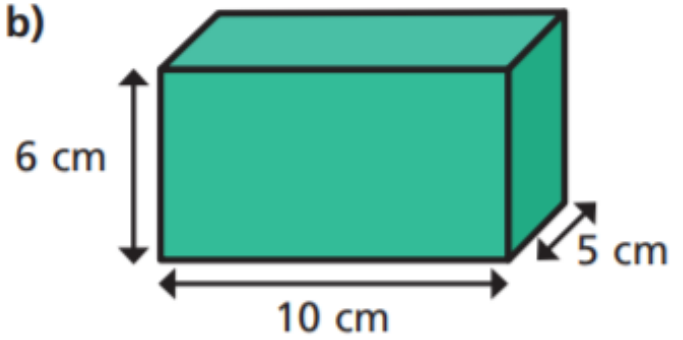
Calculate the volumes of the cuboids.

a)



volume = cm^3

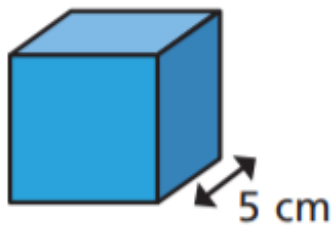
b)



volume = cm^3

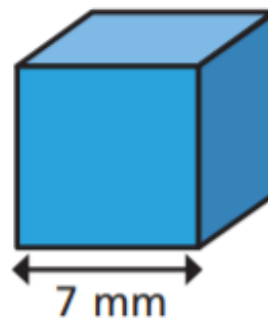
Calculate the volumes of the cubes.

a)



volume = cm^3

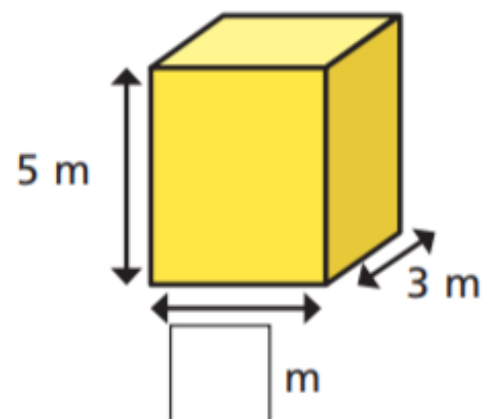
b)



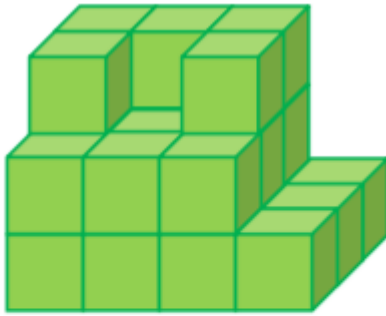
volume = mm^3

The volume of the cuboid is 60 m^3

Find the missing length.



Match the shape to its volume in cm^3 .

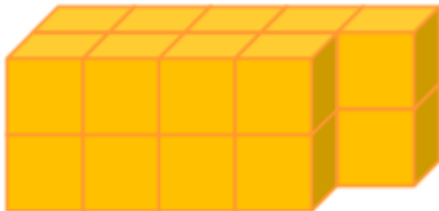


18 cm^3

26 cm^3

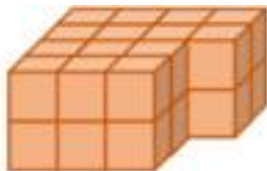
22 cm^3

True or false? The volume of this shape is 14 cm^3 .



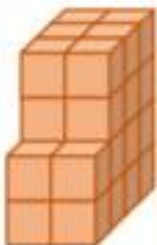
Hint: each cube has a volume of 1 cm^3 .

Look at the shape below.

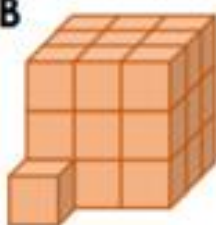


Which of these shapes has the same volume in cubic units?

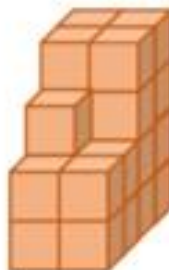
A



B

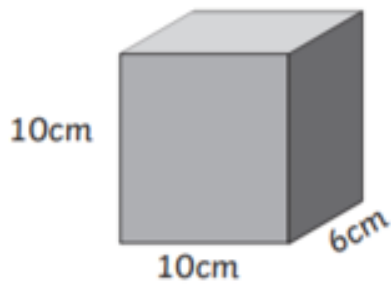


C



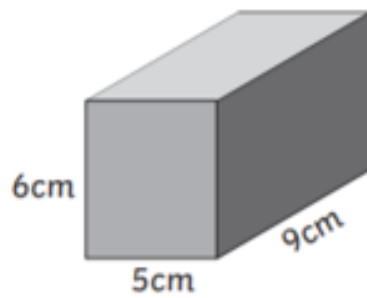
Calculate the volume of the following cuboids.

1.



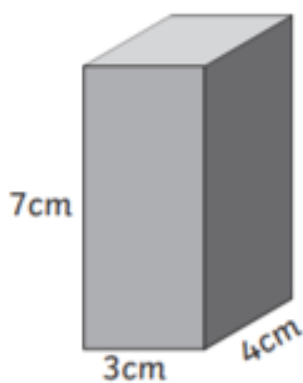
Volume =

2.



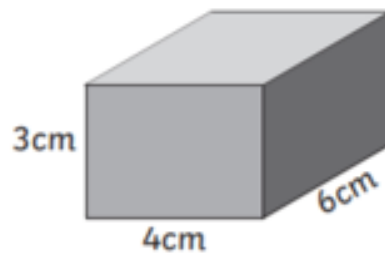
Volume =

3.



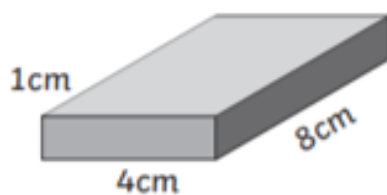
Volume =

4.



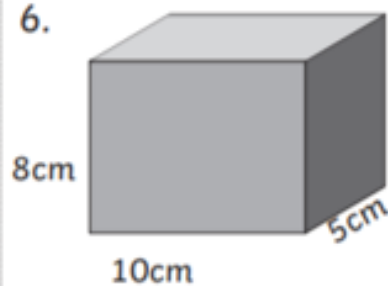
Volume =

5.



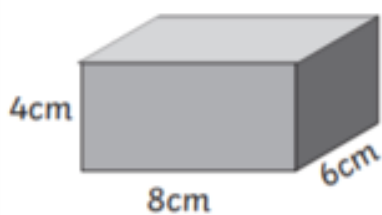
Volume =

6.



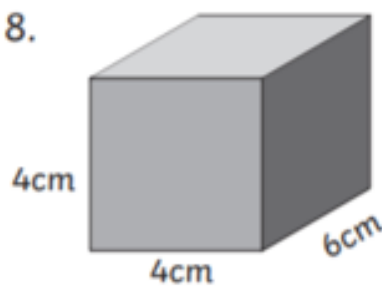
Volume =

7.



Volume =

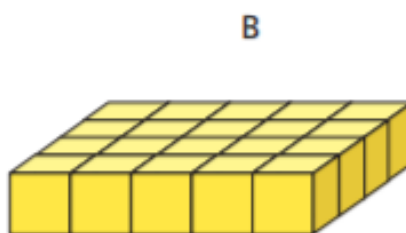
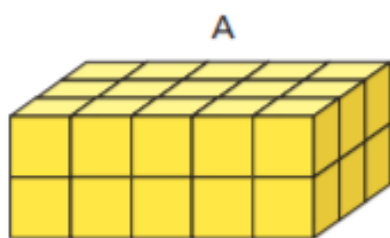
8.



Volume =

Spicy

Here are two cuboids made of 1 cm^3 cubes.

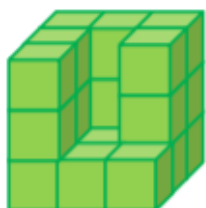


Which shape has the greater volume? _____

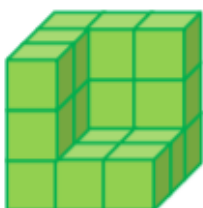
Show all your working to prove your answer.

Find the odd one out.

A



B



C



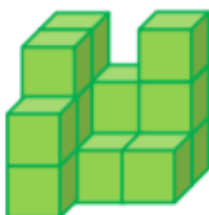
Explain your answer.

Each cube has a volume of 1 cm^3 .

A



B



C

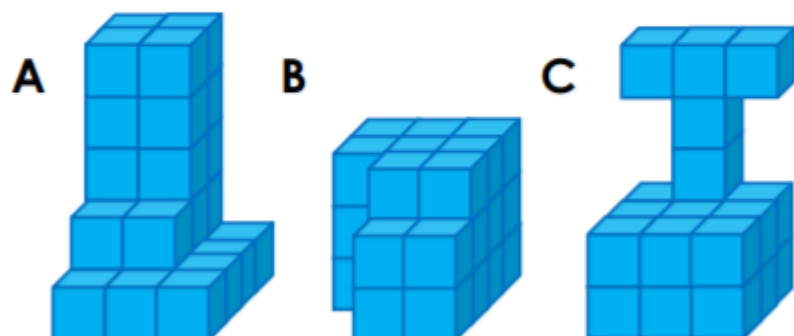


Explain your answer.

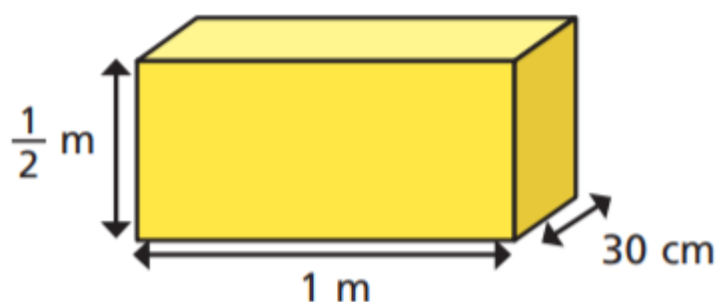
Each cube has a volume of 1 cm^3 .

Jon has 57 cubes.

Which combination from the shapes below could he create?

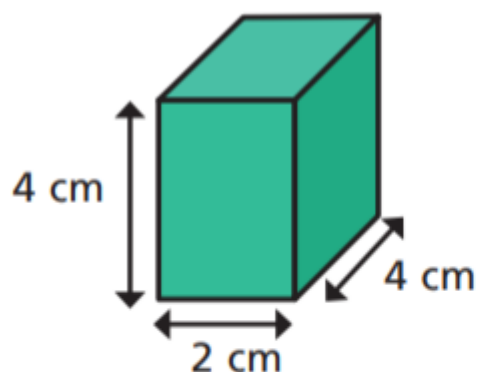


Calculate the volume of the cuboid.

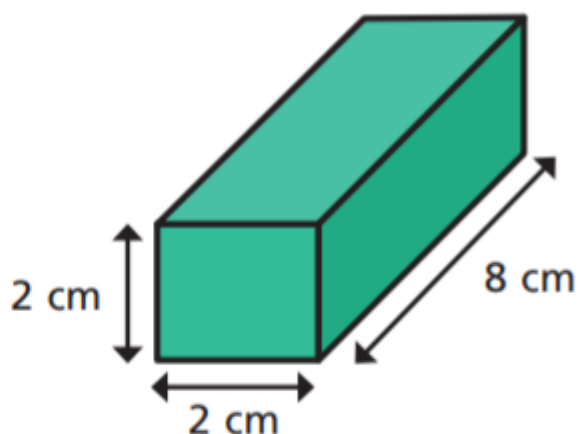


volume = cm³

a) Calculate the volumes of the two cuboids.



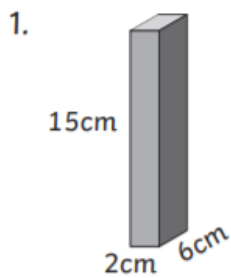
cm³



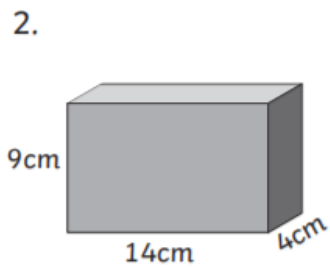
cm³

What do you notice?

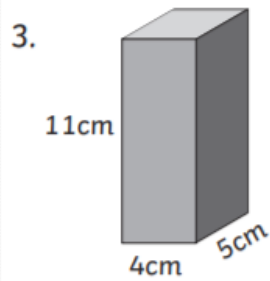
Calculate the volume of the following cuboids.



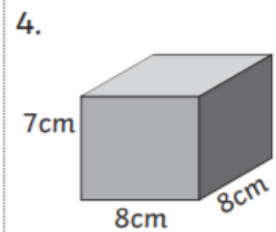
Volume =



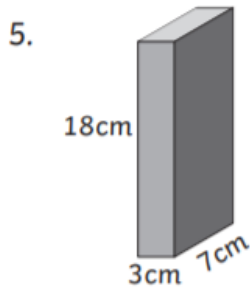
Volume =



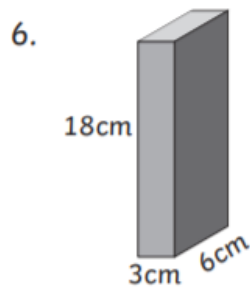
Volume =



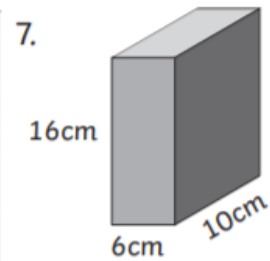
Volume =



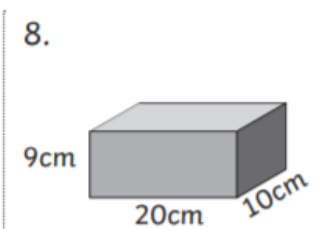
Volume =



Volume =

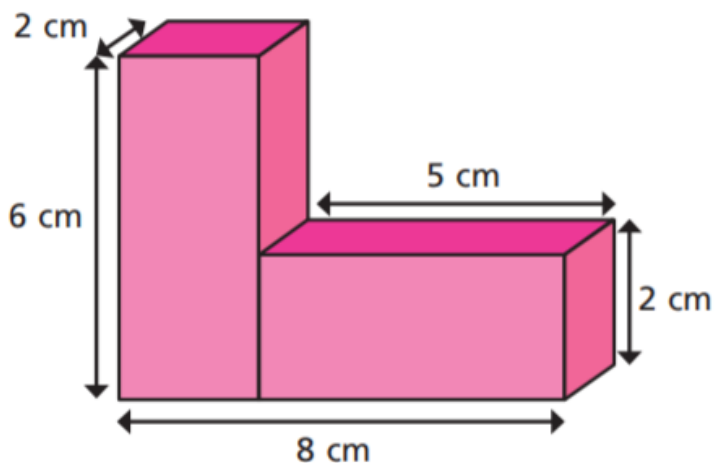


Volume =



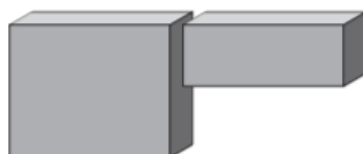
Volume =

Calculate the total volume of the shape.



Challenge

A swimming pool is made of 2 cuboid spaces with a total volume of 210m^3 . What could be the dimensions of the pool?



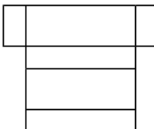
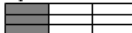
Friday

<https://www.bbc.co.uk/bitesize/tags/zncsscw/year-6-lessons/1>

Challenge of the Week

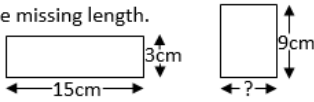
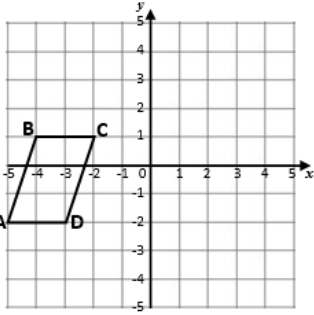
Key Skills

Mild

A: Place Value, Add and Subtract		B: Multiply, Divide and Fractions		C: Measure, Geometry and Statistics													
1. Write < or > to make this correct: 1,001,100 1,010,001	5:1	11. Circle all the factors of 32. 3 4 12 16 18	5:8	21. $\frac{1}{2}$ litre of Diet Cola costs 95p. Sue needs 2 litres of Diet Cola. How much does this cost her?	5:23												
2. Write 671,109 in words.	5:1	12. What is the only even prime number ?	5:9	22. What shape is this a net of? 	5:24												
3. Round 596,147 to the nearest ten .	5:2	13. 2,093 x 5	5:10		23. Translate the shape: 	5:28											
4. What is the missing number? 9,980 9,990 10,010	5:2	14. 75.3 ÷ 1000	5:11	24. Look at this bus timetable: <table border="1" data-bbox="1043 1081 1391 1180"><tr><td>Oldtown</td><td>10:07</td><td>10:47</td><td>11:25</td></tr><tr><td>Swanby</td><td>10:23</td><td>11:03</td><td>11:43</td></tr><tr><td>Newfield</td><td>10:49</td><td>11:29</td><td>12:09</td></tr></table> What time does the 10:23 bus from Swanby get to Newfield? 25. I want to be in Newfield by 12:00. What is the latest bus that I can get from Oldtown ?		Oldtown	10:07	10:47	11:25	Swanby	10:23	11:03	11:43	Newfield	10:49	11:29	12:09
Oldtown	10:07	10:47	11:25														
Swanby	10:23	11:03	11:43														
Newfield	10:49	11:29	12:09														
5. The temperature was -11°C then increased by 9°C. What is it now?	5:3	15. Circle all of the square numbers . 38 49 56 81 90	5:12	4 units right and 1 units up.	5:30												
6. What number is represented by these Roman Numerals? MLXIX	5:4	16. $\frac{1}{2} - \frac{3}{18} =$	5:13														
7. 390,340 + 5,475 =	5:5	17. Find an equivalent fraction of $\frac{3}{9}$. 	5:14	25. I want to be in Newfield by 12:00. What is the latest bus that I can get from Oldtown ?	5:30												
8. 94,374 – 29,194 =	5:5	18. Write $\frac{23}{2}$ as a mixed number .	5:15														
9. Complete this sum without written working. 13,750 – 6,250 =	5:6	19. $1\frac{3}{8} \times 5 =$	5:16														
10. DVDs are £12.89 each. If I buy 2, how much change do I get from £30?	5:7	20. Round 12.56 to 1 decimal place.	5:17														
Total (A)		Total (B)		Total (C)													
Test Total (A+B+C)		R (0-9)	Y (10-19)	G (20-25)													

Key Skills

Medium and Spicy

A: Place Value, Add, Subtract, Multiply and Divide		B: Fractions, Ratio, Proportion and Algebra		C: Measure, Position and Direction	
1. Write in words: 4,702,106	6:1	11. Simplify this fraction fully: $\frac{50}{75}$	6:7	21. 730g of pasta are added to 1.4kg. How much pasta is there now?	6:18/19
2. What is the value of the 2 in this number? 5,273,914	6:1	12. $4\frac{3}{5} - \frac{2}{3} =$	6:8	22. How many days are there in 3 years?	6:19
3. Round 8.427 to the nearest whole number.	6:1	13. $\frac{1}{8} \div 6 =$	6:9	23. These have the same area. Find the missing length.	6:20
4. The temperature drops from 8°C to -9°C. What is the difference?	6:2	14. What is the value of the 3 in this number: 58.473	6:10		6:20
5. $3,746 \times 52$	6:3	15. Give your answer as a decimal: $49 \div 5$	6:11	24. What are the co-ordinates of A ?	6:27
6. $912 \div 24$	6:3	16. Write this decimal as a fraction and a percentage . 0.45	6:12		6:28
7. 36 and 48 only have two common factors . What are they?	6:4	17. Find 5% of 90.	6:13		
8. The number 39 has two prime factors . What are they?	6:4	18. The ratio of cats to dogs 3:1. If there are 27 cats, how many dogs?	6:14		
9. $56 \div (15 + 13)$	6:5	19. 9 blocks get added to a tower that is h blocks tall. Write an expression.	6:15		
10. How many 65-seater buses does a school need for 265 pupils and staff?	6:6	20. Write a possible value for a and b . $(a + b) \times 5 = 45$	6:17	25. Translate parallelogram ABCD 3 units right and 1 units down.	
Total (A)		Total (B)		Total (C)	
Test Total (A+B+C)		R (0-9)	Y (10-19)	G (20-25)	