



# Key Stage 2 Home Learning Update: 13th April

This document is intended to guide parents with ideas for helping children to learn at home. This is not essential and we do not require evidence to be sent. Unless you want to share your lovely work with us! We would obviously love to see what you are doing at home on twitter or via email.



## Week 3—Week Commencing 13th April

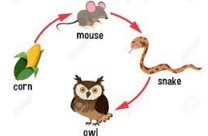

<b>English</b>	<p>In English, we will be using this video—‘The Black Hat’ to inspire our learning this week</p> <p>Video available here: <a href="https://www.youtube.com/watch?v=DoKavOfPkwo">https://www.youtube.com/watch?v=DoKavOfPkwo</a>  <a href="https://vimeo.com/45584240">https://vimeo.com/45584240</a></p> <p><u>Activities to try:</u></p> <p>Make a fact sheet about your favourite animal. Remember to include its habitat, its diet, how long it lives for, natural predators.</p> <p>Make a poster about protecting animals in danger (e.g. orangutan, gorilla, elephant etc.). Can you use persuade your readers about the importance of protecting these animals?</p>	
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<b>Maths</b>	<p>In Maths, we will be learning about Measurement.</p> <p>Length, height ,perimeter and area.</p>				
	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Year 6</u>	
	Measuring length.	Kilometres	Measure and calculate perimeter.	Shapes with the same area.	
	Equivalent lengths (cm and m) (mm and cm)	Perimeter on a grid	Area of rectangles, compound and irregular shapes.	Area and perimeter.	
	Comparing length	Perimeter of a rectangle		Area of a triangle	
	Adding and subtracting length.	Perimeter of other shapes formed by straight lines.		Area of a parallelogram	
	Measuring and calculating perimeter.				

## Other ideas and things to look out for

Maths— <https://whiterosemaths.com/homelearning/> - This is a full daily lesson with a video explanation and an activity. This really is a super idea.

English— <https://www.worldofdavidwalliams.com/elevenses> Every day at 11am David Walliams reads one of his World’s Worst Children stories. You can watch previous ones on the website too.

Wider Curriculum Animals in captivity	<p><u>Maths/Science</u></p> <p>Make a food chain of your favourite predator (e.g. shark, lion).</p> <p>⇒ What would your food chain start with?</p> <p>⇒ Can you use these words– producer, consumer, predator.</p>	
	<p>Make an ant farm <a href="https://www.instructables.com/id/Soda-Bottle-Ant-Farm/">https://www.instructables.com/id/Soda-Bottle-Ant-Farm/</a></p> <p>⇒ Keep a diary for a week– what’s happening in the farm? What can you see?</p> <p>⇒ Release the ants after a week. Write about how you feel now you have let them go.</p> <p>⇒ Make a table of endangered animals from each of the following classifications– mammal, reptile, bird, fish, amphibian. Which one has the most endangered animals in it?</p>	
	<p><u>Art/DT</u></p> <p>⇒ Camouflage outfit. Design a outfit to wear during a safari.– jungle, desert, ocean, artic. Think about the colour, design, texture. How will it camouflage you in the wild? Perhaps you could make it out of things around the home and put on a fashion show?</p> <p>⇒ Create a junk model habitat that would be suitable for an endangered animal.</p>	
Values	The value of the month is Patience	

**How many are left?**

Match the endangered species to the number

<b>Javan Rhinoceros</b>	<b>10</b>
<b>Vaquita</b>	<b>3,900</b>
<b>Mountain Gorillas</b>	<b>10</b>
<b>Tigers</b>	<b>50,000</b>
<b>Asian Elephants</b>	<b>58-68</b>

Extension: Where in the world will you find each of these animals?  
Can you find the countries on a map or a globe?



**Share your learning on Twitter:**

@FeatherstoneY3  
@FeatherstoneYr4  
@FeatherstoneYR5  
@FeatherstoneYR6



**Animal anagrams**

GLOIARLTA	OILN	OLPNHID
YMOEKN	TNPLEHEA	EGRTI
ORCDCILEO	GFRFEIA	DBRI

# Year 3 Measurement Example Problems

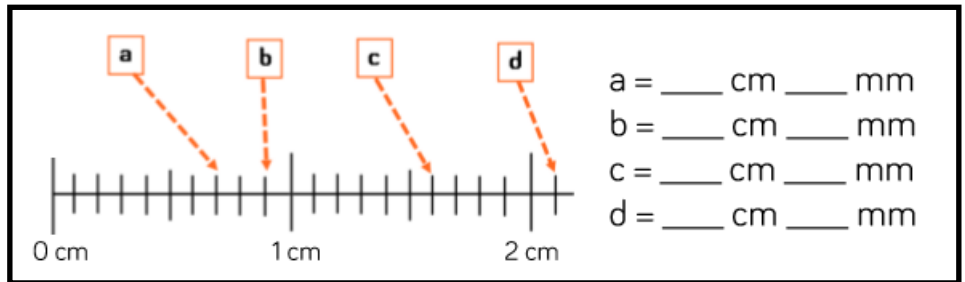
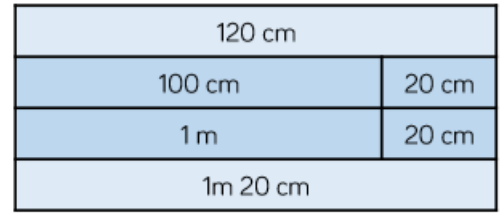
Can you match the equivalent measurements?

100 cm	9 m
5 m	200 cm
300 cm	500 cm
2 m	1 metre
900 centimetres	3 m

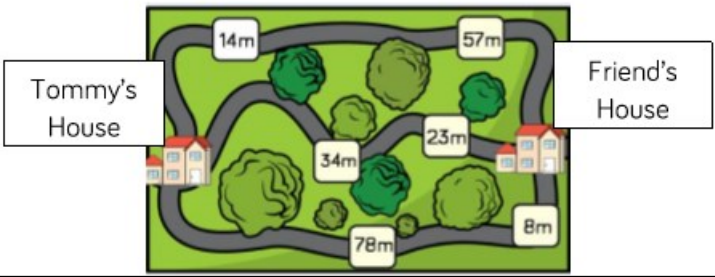
Eva uses this diagram to convert between centimetres and metres.

Use Eva's method to convert:

- 130 cm
- 230 cm
- 235 cm
- 535 cm
- 5 • 547 cm



Tommy needs to travel to his friend's house. He wants to take the shortest possible route. Which way should Tommy go?

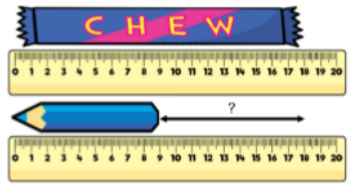


Complete the sentences.

Child	Height
Rosie	109 cm
Amir	1 m 5 cm
Jack	135 cm
Dora	1 m 45 mm

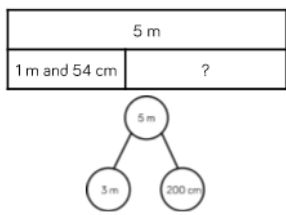
- Rosie is \_\_\_\_\_ than Jack.
- Jack is \_\_\_\_\_ than Dora.
- Amir is \_\_\_\_\_ than Rosie.
- Dora is \_\_\_\_\_ than Amir.

Find the difference in length between the chew bar and the pencil.



- The chew bar is \_\_\_ cm long.
- The pencil is \_\_\_ cm long.
- The chew bar is \_\_\_ cm longer than the pencil.

Alex has 5 m of rope. She uses 1 m and 54 cm to make a skipping rope. She works out how much rope she has left using two different models.



$$5 \text{ m} - 1 \text{ m} = 4 \text{ m}$$

$$4 \text{ m} - 54 \text{ cm} = 3 \text{ m } 46 \text{ cm}$$


$$200 \text{ cm} - 154 \text{ cm} = 46 \text{ cm}$$


$$3 \text{ m} + 46 \text{ cm} = 3 \text{ m } 46 \text{ cm}$$

Ron builds a tower that is 14 cm tall. Jack builds a tower that is 27 cm tall. Ron puts his tower on top of Jack's tower. How tall is the tower altogether?


- Use the models to solve:
- Mrs Brook's ball of wool is 10 m long. She uses 4 m and 28 cm to knit a scarf. How much does she have left?
  - A roll of tape is 3 m long. If I use 68 cm of it wrapping presents, how much will I have left?

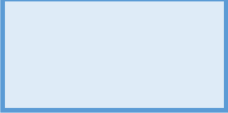
# Year 3 Measurement Example Problems


 Tick the images where you can find the perimeter.





Explain why you can't find the perimeter of some of the images.

 Use a ruler to measure the perimeter of the shapes.










Amir is measuring the shape below. He thinks the perimeter is 7 cm.

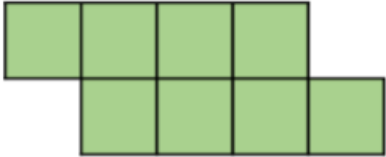
Can you spot his mistake?




Amir has only included two of the sides. To find the perimeter he needs all 4 sides. It should be 14 cm.

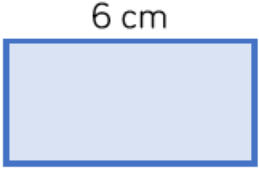
Here is a shape made from centimetre squares.

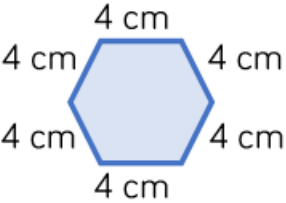
Find the perimeter of the shape.




The perimeter is 14 cm.


 Calculate the perimeter of the shapes.

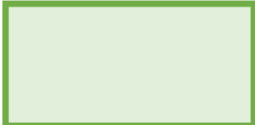






Can you find more than one way to calculate the perimeter?

 What is the length of the missing side?



Perimeter = 16 cm

# Year 4 Measurement Example Problems

**Complete the statements.**

3,000 m = \_\_\_ km      8 km = \_\_\_\_\_ m

5 km = \_\_\_ m      3 km + 6 km = \_\_\_\_\_ m

500 m = \_\_\_ km      250 m = \_\_\_\_\_ km

9,500 m = \_\_\_ km      4,500 m - 2,000 m = \_\_\_\_\_ km

Dexter and Rosie walk 15 kilometres altogether for charity.

Rosie walks double the distance that Dexter walks.

How far does Dexter walk?

Rosie walks 10 km.  
Dexter walks 5 km.

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Dexter and Rosie each raise £1 for every 500 metres they walk.

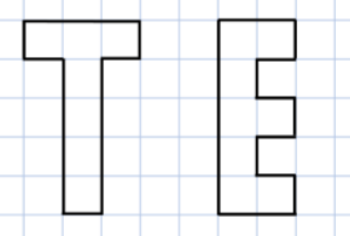
How much money do they each make?

Rosie raises £20  
Dexter raises £10

**Complete the bar models.**

<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td colspan="2" style="background-color: #90EE90; text-align: center;">3 kilometres</td></tr> <tr><td style="background-color: #FFD700; width: 20%;"></td><td style="background-color: #ADD8E6; width: 80%; text-align: center;">1,800 metres</td></tr> </table>	3 kilometres			1,800 metres	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td colspan="2" style="background-color: #90EE90; text-align: center;">_____ km</td></tr> <tr><td style="background-color: #FFD700; width: 20%; text-align: center;">2,870 m</td><td style="background-color: #ADD8E6; width: 80%; text-align: center;">4,130 m</td></tr> </table>	_____ km		2,870 m	4,130 m
3 kilometres									
	1,800 metres								
_____ km									
2,870 m	4,130 m								

Which of these shapes has the longest perimeter?



E has a greater perimeter, it is 18 compared to 16 for T.

Open ended.

Letters which could be drawn include:  
B C D F I J L O P

Letters with diagonal lines would be omitted.

If heights of letters are kept the same, I or L could be the shortest.

Explore other letters which could be drawn as rectilinear shapes.

Put them in order of shortest to longest perimeter.


Can you make a word?

**Use <, > or = to make the statements correct.**


500 m	<input type="radio"/>	$\frac{1}{2}$ km
7 km	<input type="radio"/>	800 m
5 km	<input type="radio"/>	500 m

Children calculate the perimeter of rectilinear shapes by counting squares on a grid. Rectilinear shapes are shapes where all the sides meet at right angles.

**Eva is finding the perimeter of the rectangle.**



I added the length and width together and then multiplied by 2


5 cm 

10 cm

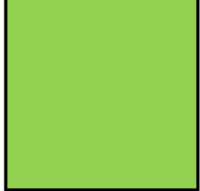
$5 \text{ cm} + 10 \text{ cm} = 15 \text{ cm}$

$15 \text{ cm} \times 2 = 30 \text{ cm}$

Use Eva's method to find the perimeter of the rectangles.

6 m 


16 m

9 cm 

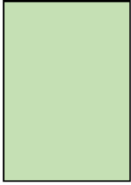
9 cm

# Year 4 Measurement Example Problems

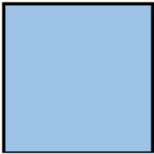
■ Calculate the perimeter of the rectangles.



2 cm  
5 cm



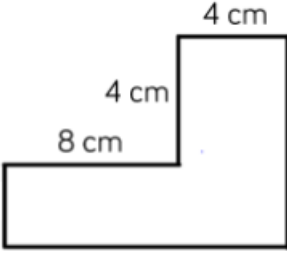
10 cm  
4 cm

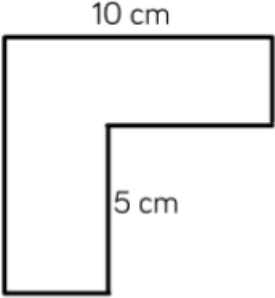


8 cm  
8 cm

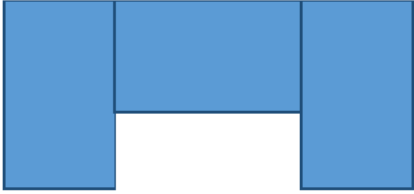
\_\_\_ cm + \_\_\_ cm + \_\_\_ cm + \_\_\_ cm = \_\_\_ cm

■ Find the perimeter of the shapes.






■ The shape is made from 3 identical rectangles. Calculate the perimeter of the shape.



5 cm

3 cm

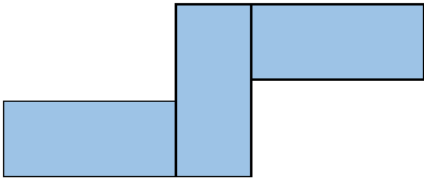
Amir has some rectangles all the same size.



3 cm

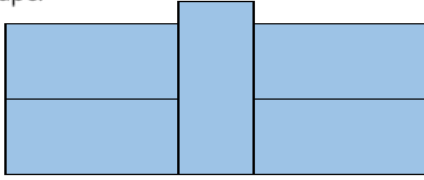
8 cm

He makes this shape using his rectangles. What is the perimeter?



54 cm

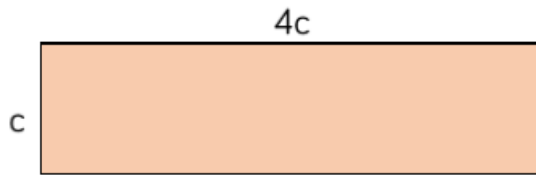
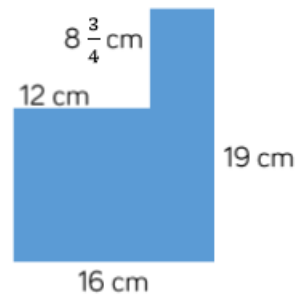
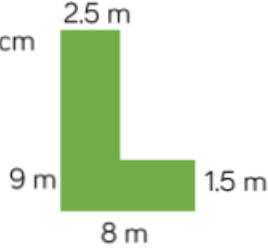
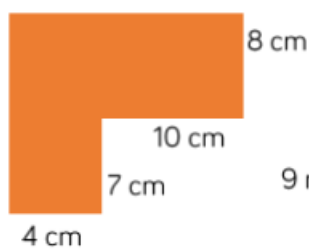
He makes another shape using the same rectangles. Calculate the perimeter of this shape.



54 cm

# Year 5 Measurement Example Problems

Find the perimeter of the following shapes.



The value of  $c$  is 14 m.  
What is the total perimeter of the shape?

$$4c + 4c + c + c = 10c$$

$$10 \times 14 = 140 \text{ m}$$



The blue rectangle has a perimeter of 38 cm.  
What is the value of  $a$ ?

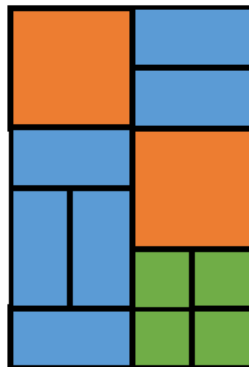
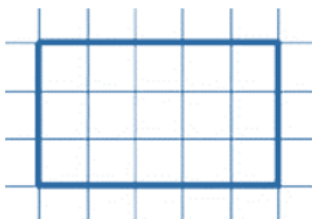
$$\text{Total perimeter} = 38 \text{ cm}$$

$$38 - (4.8 + 4.8) = 28.4$$

$$\text{So } 28.4 \text{ divided by } 2 = 14.2 \text{ cm}$$

What is the area of this shape if:

- each square is 2 cm in length?
- each square is 3.5 cm in length?



Each orange square has an area of  $24 \text{ cm}^2$ .

Calculate the total orange area.

Calculate the blue area.

Calculate the green area.

What is the total area of the whole shape?

Answer:

$$\text{Orange} = 48 \text{ cm}^2$$

$$\text{Blue} = 72 \text{ cm}^2$$


$$\text{Green} = 24 \text{ cm}^2$$

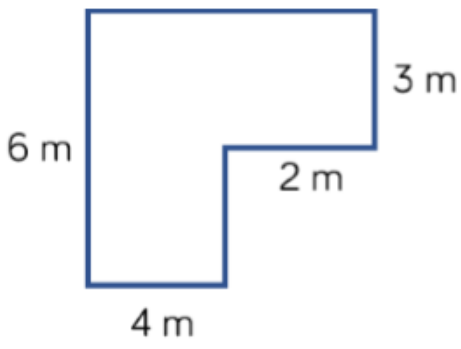
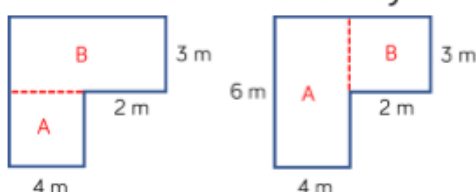
$$\text{Total} = 144 \text{ cm}^2$$




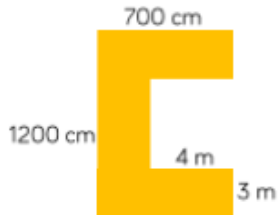
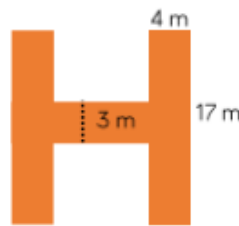
# Year 5 Measurement Example Problems

Children learn to calculate area of compound shapes. They need to be careful when splitting shapes up to make sure they know which lengths correspond to the whole shape, and which to the smaller shapes they have created. They will discover that the area remains the same no matter how you split up the shapes. Children need to have experience of drawing their own shapes in this step.

 Find the area of the compound shape:  
How many ways can we split the compound shape?  
Is there more than one way?

 Calculate the area of these symmetrical shapes.

Children use their knowledge of counting squares to estimate the areas of shapes that are not rectilinear. They use their knowledge of fractions to estimate how much of a square is covered and combine different part-covered squares to give an overall approximate area.

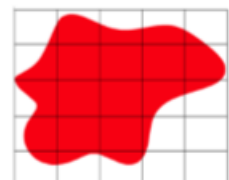
Children need to physically annotate to avoid repetition when counting the squares.

Estimate the area of the pond.  
Each square =  $1 \text{ m}^2$

Ron's answer is 4 whole squares and 11 parts.  
Is this an acceptable answer?

What can we do with the parts to find an approximate answer?

If all of the squares are 1 cm in length, which shape has the greatest area?





# Year 6 Measurement Example Problems

Look at the shapes below.

12 cm

2 cm

6 cm

3 cm

2 cm

9 cm

9 cm

1 cm 8 cm 8 cm 7 cm 1 cm

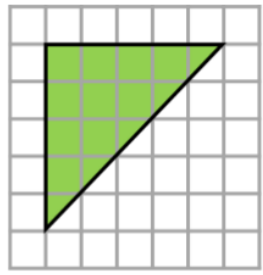
Do any of the shapes have the same area?

Do any of the shapes have the same perimeter?

Children will use their previous knowledge of approximating and estimating to work out the area of different triangles by counting.

Children will need to physically annotate to avoid repetition when counting the squares.

Children will begin to see the link between the area of a triangle and the area of a rectangle or square.

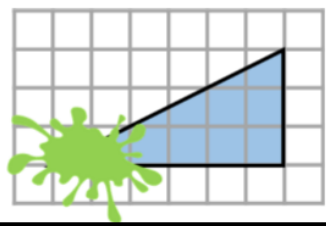


Mo is incorrect because he has counted the half squares as whole squares.

Mo says the area of this triangle is  $15\text{cm}^2$ . Is Mo correct? If not, explain his mistake.

Count squares to calculate the area of each triangle.

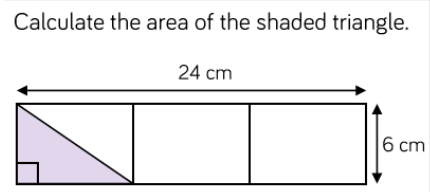
Part of a triangle has been covered. Estimate the area of the whole triangle.



$9\text{cm}^2$

Children use their knowledge of finding the area of a rectangle to find the area of a right-angled triangle. They see that a right-angled triangle with the same length and perpendicular height as a rectangle will have an area half the size.

Using the link between the area of a rectangle and a triangle, children will learn and use the formula to calculate the area of a triangle.



The area of the shaded triangle is  $24\text{cm}^2$

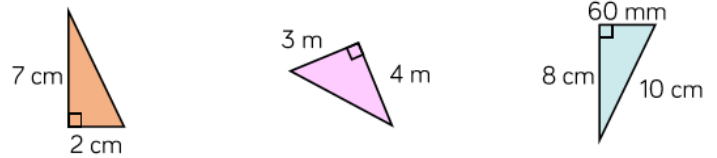
Mo is incorrect as he has just multiplied the two numbers given and divided by 2, he hasn't identified the correct base of the triangle.

Mo says,

I got an answer of  $72\text{cm}^2$

Do you agree with Mo?  
If not, can you spot his mistake?

Calculate the area of these triangles.



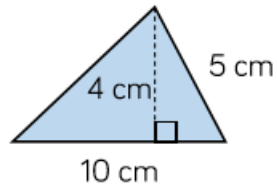
10

## Year 6 Measurement Example Problems

Children will extend their knowledge of working out the area of a right-angled triangle to work out the area of any triangle.

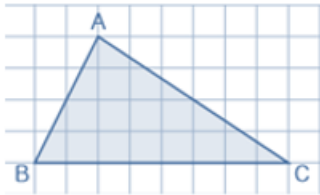
They use the formula,  $\text{base} \times \text{perpendicular height} \div 2$  to calculate the area of a variety of triangles where different side lengths are given and where more than one triangle make up a shape.

- To calculate the height of a triangle, you can use the formula:  
 $\text{base} \times \text{height} \div 2$   
 Choose the correct calculation to find the area of the triangle.



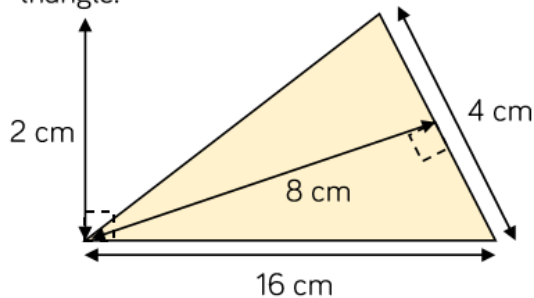
- $10 \times 5 \div 2$
- $10 \times 4 \div 2$
- $5 \times 4 \div 2$

- Estimate the area of the triangle by counting squares.



Now calculate the area of the triangle.  
Compare your answers.

Class 6 are calculating the area of this triangle.



Here are some of their methods.

$4 \times 8 \times 16 \times 2 \div 2$

$4 \times 8 \div 2$

$16 \times 2 \div 2$

$16 \times 4 \div 2$

$16 \times 8 \div 2$

$8 \times 1$

Tick the correct methods.

Explain any mistakes.

The correct methods are:

$16 \times 2 \div 2$

$4 \times 8 \div 2$

All mistakes are due to not choosing a pair of lengths that are perpendicular.

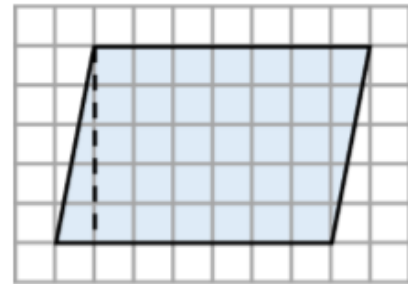
Children could explore other methods to get to the correct answer e.g. halving the base first and calculating  $8 \times 2$  etc.

## Year 6 Measurement Example Problems

Children use their knowledge of finding the area of a rectangle to find the area of a parallelogram.

Children investigate the link between the area of a rectangle and parallelogram by cutting a parallelogram so that it can be rearranged into a rectangle. This will help them understand why the formula to find the area of parallelograms works.

- Approximate the area of the parallelogram by counting squares.  
Now cut along the dotted line.  
Can you move the triangle to make a rectangle?  
Calculate the area of the rectangle.



- Use the formula base  $\times$  perpendicular height to calculate the area of the parallelograms.

