#### Area and Perimeter

Work through these tasks at your own pace and level:



<u>Area</u> – the space covered by a shape

Answers can be found at the end of the booklet. If your answers don't match – try the problem again and see if you can work out how to get to the correct answer.

## 1. Perimeter

Finding the perimeter of a shape means adding all of the sides together:



## 2. Perimeter of Compound Shapes

Add together all of the lines around the shape:



However, there is a much quicker solution: By finding the height and width of the shape, adding these together and doubling the result, you can find the perimeter much faster:

Height: 8cm	8 + 10 = 18cm
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Width: 10cm 18 x 2 = 36cm





Put the perimeters of the shapes above in order, smallest to biggest.

Design 3 compound shapes with a perimeter of 32cm.

Perimeters of rectangles and compound rectilinear shapes are all even. Prove it!

## 3. Area

Area is the amount of space covered by a shape. In a shape split into squares, you can simply count them:







Put the areas of the shapes above in order, largest to smallest.

The area of a rectangle is 72cm<sup>2</sup>. One of the sides is 6cm long. Draw the rest of the rectangle.

The area of a rectangle is  $32m^2$ . It is twice as tall as it is wide. Draw the rectangle.

# 4. Area of Compound Shapes

Split the shape up into rectangles. Use the height and length of each rectangle to find the area; then add them together:





## 5. Problem Solving

4 farmers want to buy fields to house their horses. There are 4 fields for sale. However, the horses have certain requirements. Can you match it up so that each farmer gets a field that works for their horse?



Design a field that would house Farmer A, Farmer B and Farmer D's horse.

#### Answers:





Put the perimeters of the shapes above in order, smallest to biggest. C, E, B, D,	Α	
Design 3 compound shapes with a perimeter of 32cm.		
Perimeters of rectangles and compound rectilinear shapes are all even. Prove it!	Each side is doubled to include the opposite	
	side. So the answer is	
	always even	



The area of a rectangle is  $32m^2$ . It is twice as tall as it is wide. Draw the rectangle.





4.



