

Guidance

Algebra

To calculate $3n - 15$ when $n = 24$, place 24 in the place of n .

$$3n = 3 \times n = 3 \times 24 = 72$$

$$3n - 15 = 72 - 15 = 57$$

To calculate the value of t in $28 - 3t = 10$, there are various methods.

One is to calculate the value of $3t$ by calculating what is subtracted from 28 to make 10. $3t = 18$.

If $3t = 18$, calculate what is multiplied by 3 to give 18. So $t = 6$.

Time

Children are expected to read analogue and digital clocks and watches in 12 and 24 hour time, up to 1 minute intervals. Analogue clocks use both numbers and Roman numerals.

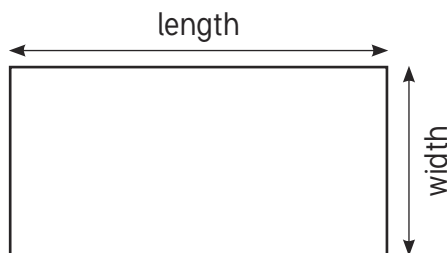
Children are also expected to convert measurements of time, such as minutes into hours and minutes.

Money

Children need to be able to combine coins to make amounts of money and calculate totals and change.

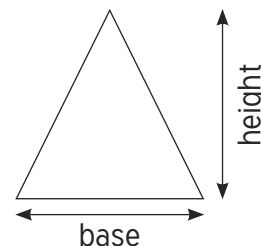
Area and Perimeter

Children need to know that the area of rectangles can be calculated by multiplying the length and width.

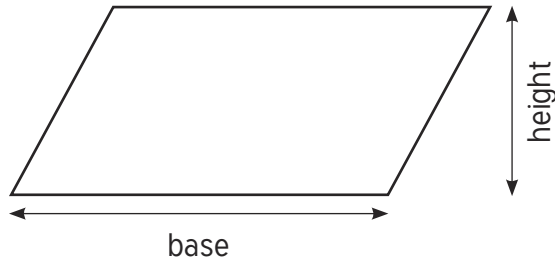


This is then applied to finding the area of triangles and parallelograms.

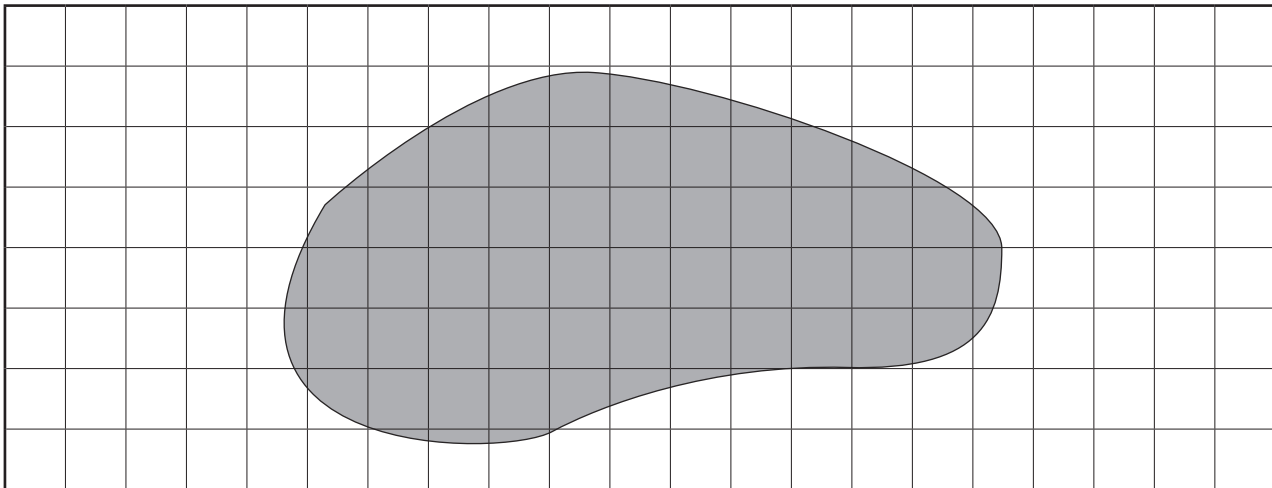
The area of a triangle is the length of the base \times the height $\div 2$



The area of a parallelogram is the length of the base \times the height

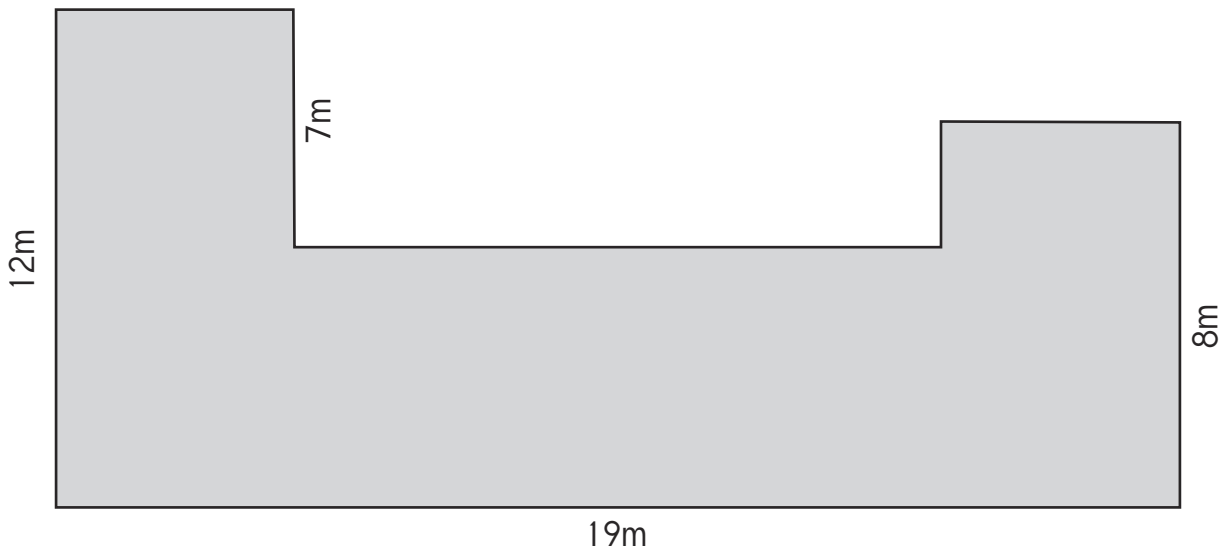


Children will also need to estimate the area of irregular shapes.



Children should count the whole squares and then those more than half shaded.

To calculate the perimeter of rectilinear shapes (rectilinear shapes have all angles as right angles), children need to calculate the lengths of all the sides, or the combined length of all sides.



With this example the length of the 3 horizontal sides at the top will be 19m. There is one unknown vertical side. Because $7\text{m} + 8\text{m}$ is 3m longer than the 12m on the left hand side, the unknown vertical side is 3m. These measurements can be used to calculate the whole perimeter as 68m.

Measurement

Children are expected to calculate and convert grams and kilograms as part of a question. In Q13, the 1kg of apples has to be divided by 8. $1\text{kg} = 1000\text{g}$, so divide 1000g by 8 to give 125g.

Children are expected to use scales on jugs and other capacity measuring containers. In Q14, the children need to work out that each segment of the scale is worth 5ml.

Children will need to measure to the nearest millimeter with a ruler. Remember to start at 0.

As with mass, some questions may involve converting from ml to litres and mm to cm to metres to km.