

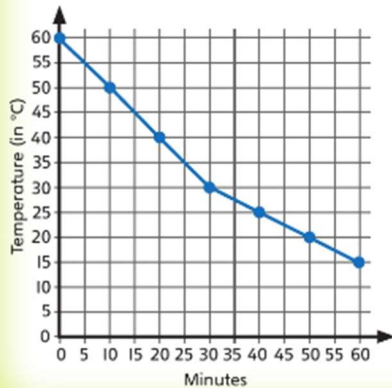
Unit 12

Statistics



In this unit we will ...

- ⚡ Interpret and create line graphs and bar charts
- ⚡ Read and interpret pie charts using fractions
- ⚡ Read and interpret pie charts using percentages
- ⚡ Learn to calculate the mean of a set of data
- ⚡ Use the mean to find missing data



We will be interpreting line graphs.

Here is a line graph that shows the temperature of a hot chocolate drink that was left to cool.

What was the temperature of the hot chocolate after 10 minutes?



We will need some maths words. Which ones do you recognise?

mean

average

pie chart

segments

line graph

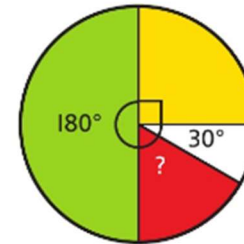
bar chart

percentage

fraction

data

We need to know that the angles around a point add up to 360° . Calculate the missing angle.



Unit 13

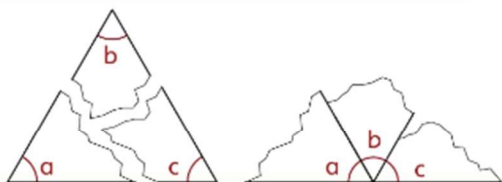
Geometry – properties of shapes



In this unit we will ...

- ⚡ Measure angles and draw shapes accurately using a ruler and protractor
- ⚡ Calculate unknown angles in shapes and on lines using angle facts
- ⚡ Explore properties of polygons and circles
- ⚡ Identify 3D shapes from 2D representations
- ⚡ Draw multiple nets for a 3D shape

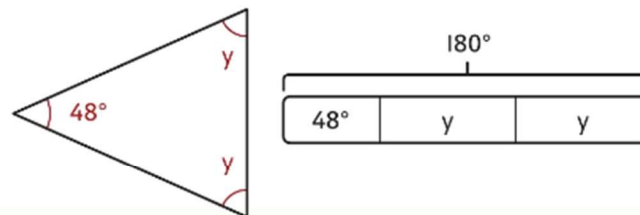
How can you use your knowledge of angles on a straight line to work out what the interior angles of a triangle add up to?



We will need some maths words. Which ones do you recognise? What do they mean?

degree angle obtuse acute reflex
right angle protractor triangle isosceles
isometric equilateral scalene regular polygon
quadrilateral parallelogram kite rhombus trapezium
diameter radius circumference concentric perimeter
nets pyramid tetrahedron cylinder prism
vertically opposite angles cuboid cube

We also need to be able to use bar models to calculate unknown angles. How can you work out the size of this angle without measuring?



Unit 14

Geometry – position and direction



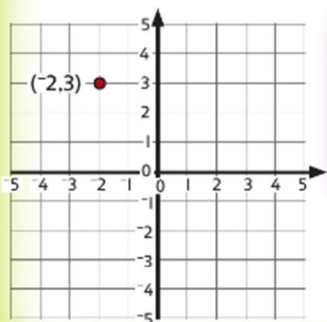
We will need some maths words. Which ones have you seen before?

quadrant four quadrants translate
 translation x-axis y-axis axis
 axes horizontal vertical
 vertex vertices reflect reflection
 positive negative



In this unit we will ...

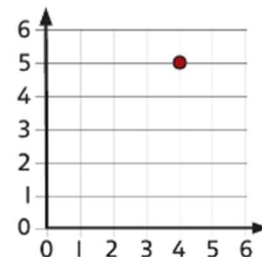
- ⚡ Look at how we can use coordinates to describe the position of a point on a grid
- ⚡ Look at how coordinates can have positive or negative values
- ⚡ Explore how we can use our knowledge of properties of shapes to help us solve problems on a coordinate grid
- ⚡ Explore how we can move and change shapes on a coordinate grid, through translations and reflections



We are going to use grids like this in this unit. How is it different to what you have met before?



We will need this too. Can you work out how we could describe the position of the point on the grid?



Unit 15

Problem solving



In this unit we will ...

- ⚡ Solve problems about numbers, including fractions and ratios
- ⚡ Use representations to help make sense of problems
- ⚡ Use the four operations flexibly
- ⚡ Reason about problems with a context and without a context
- ⚡ Apply our understanding of measurement and geometry to solve problems

In previous units, we used the four operations to solve calculations. Which operations do you need to find the value of the triangle?

$$\triangle + \triangle - 120 = 300$$



We will need some maths words. Which ones do you remember?

partition estimate round
 compare equivalent percentage
 ratio proportion convert
 common denominator coordinates
 translation reflection vertex
 scaling isosceles triangle

We will also use bar models and number lines. What values do the question marks represent in the number line and bar model below?

