

Ratio and Scale

Understand meaning and representation of ratio.

Simplify any given ratio.

Represent a ratio as a fraction.

Divide by a given ratio.

Investigate ratio and Pi using circles

Multiplicative Change

Solve problems using direct proportion.

Convert between currencies (using a calculator).

Understand and use scale factors.

To be able to use a conversion graph.

Multiply and Divide Fractions

Multiply a fraction by integer.

Find the product of a pair of fractions.

Divide an integer by a fraction.

Divide fraction by a fraction.

Cartesian Plane

Label and identify parallel lines to the axes.

Draw parallel lines to the axes.

Plot lines $y = kx$.

Plot lines $y = x + a$.

Plot lines $y = mx + c$.

Representing Data

Draw and Interpret Scatter graphs.

Draw a line of best fit.

Identify different types of data.

Read and interpret grouped data.

Read and interpret ungrouped data.

Read and interpret two way tables.

Brackets and Equations

Know algebraic terminology.

Form algebraic expressions.

Expand a single bracket.

Factorise a single bracket.

Expand a pair of binomials.

Solve equations with brackets.

Solve equations with variables on both sides.

Sequences

Generate a sequence from term to term and position to term.

Create a sequence from nth term

Find the nth term of a sequence.

Standard Form

Write numbers in standard form as ordinary numbers (Large numbers)

Write numbers in standard form as ordinary numbers (small numbers)

Convert from standard form to ordinary form.

Indices

Collect like terms with indices.

Multiply expressions with indices.

Divide expression with indices.

Explore powers of powers.

Angles in parallel lines and polygons

Identify and calculate alternate angles.

Identify and calculate corresponding angles.

Identify and use co-interior angles

Identify properties of special quadrilaterals

Understand polygon terminology

Understand polygon total of angles (Interior and Exterior)

Use a compass correctly

Fractions and Percentages

Convert between F/D/P

Calculate fractions and percentage of amounts

Increase or decrease a percentage without a calculator

Increase or decrease using a multiplier

Express an amount as a percentage of another.

Find percentage change

Number Sense

Round number to powers of 10.

Round numbers to 1.s.f.

Round numbers to any decimal place.

Use estimations.

Area of Trapezia and Circles

Work out the area of triangles, rectangles and parallelograms.

Calculate the area of a trapezium.

Work out area and perimeter of compound shapes.

Calculate the area of a circle with a calculator.

Calculate the circumference of a circle with a calculator.

Measure of Location

Calculate the mean, median and mode.

Compare results using the averages and the range.

Symmetry and Reflection

Recognise lines of symmetry.

Reflect a shape horizontally or vertically (x and y axis).

Reflect a shape diagonally.

Data Handling

Identify primary and secondary data.

Draw a bar chart including multiple bar charts.

Draw and interpret a pie chart.

Draw and interpret a line chart.

Collect grouped data.

Find and interpret the range.