

**HIGHER TIER CALCULATOR PAPER**

Priority of operations and round to significant figures

Area of a triangle and trapezium

Set up and solve two linear simultaneous equations

Mean and range

Pie Charts

Best value money problem

Use angle facts in polygons

Percentage change using decimal or fractional multipliers

Complete a tree diagram and solve problems

Use trigonometry, area of a circle, area of a triangle in geometry problems

Calculate upper and lower bounds of a calculation & use  $\text{speed} = \text{distance} \div \text{time}$ 

Box Plots

**HIGHER TIER NON CALCULATOR PAPER**

Divide a decimal by a decimal

Complete a sample space diagram for two events and work out probabilities

 $\text{Speed} = \text{distance} \div \text{time}$  problem involving unit conversions, fractions, percentages

Scattergraph

Construct angle bisector to identify loci of points

Estimate a calculation involving compound units,  $\text{density} = \text{mass} \div \text{volume}$ 

Fraction calculation using ratio of two parts as a fraction of a whole

Set up and solve linear equation for an algebraic perimeter problem

Find  $n$ th term of a fractional sequence

Expand and simplify products of more than two binomials

Calculate with equivalent fractions and convert recurring decimal to an exact fraction

Rearrange volume of sphere and cone formulae to formulate an algebraic expression

**FOUNDATION CALCULATOR PAPER**

Identify an even number, multiple, cube number and prime

Find the median and range

Draw next pattern in a sequence and identify rule

Inverse operations

Listing combinations

Express one quantity as a fraction of another

Coordinates and equations of lines

Identify equation of a vertical line

Substitute numerical values into a formula &amp; solve linear equation

Write a ratio in its simplest form

Percentage increase

Calculate mean from a frequency table

Priority of operations and rounding to significant figures

Area of a triangle and trapezium

<b>FOUNDATION NON CALCULATOR PAPER</b>
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Add and subtract decimals
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Subtraction and division involving negative numbers
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Use the language of circles
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Interpret a probability scale, expressing as a fraction
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Write a decimal as a fraction
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Write an improper fraction as a mixed number
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Subtract fractions and express in simplest form
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Divide fractions and express in simplest form
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Simplify algebraic expression by collecting like terms
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Laws of indices
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Recognise number sequences
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Multiply decimals and find the difference of whole numbers
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Estimate a calculation involving units of measure
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Divide a decimal by a decimal
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Complete a sample space diagram for two events
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Speed = distance $\div$ time problem involving unit conversions, fractions, percentages
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Limitations of speed calculation
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Scattergraph
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Identify an outlier
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Set up and solve linear equation for an algebraic perimeter problem
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Interpret solution by substituting into given algebraic expressions
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