Ripon Grammar School

Information about Mathematics Assessment for 13+ (Year 9) Entry September 2027

About the paper:

- Students will have two tests
- One paper will require a calculator whilst the other is non-calculator
- Questions will assess a range of mathematical skills and understanding
- There will be a total of 50 marks available on each paper (making a total of 100 marks overall)

Topic list:

Algebra

- Expanding single and double brackets
- Factorising into 1 bracket
- Solve linear equation (involving brackets and unknown on both sides)
- Setting up simple linear equations
- Changing the subject of a formula
- Substitution including negative numbers

Angles

- On a line/around a point

Area, perimeter and volume

- Compound shape, incl triangle
- Surface area of cuboids and triangular prisms
- Volume of cuboids and triangular prism

Arithmetic

- Order of operations
- Long multiplication/division
- Fractions - addition/subtraction (including vulgar fractions)
- Fractions - multiplication/division (including vulgar fractions)
- Fractions and percentages
- Find a percentage of a quantity
- Find percentage increase/decrease
- Increase/decrease by a %age
- Reverse percentages

Probability

- Of single event
- Complementary events
- Of successive events
- Tree diagrams

Pythagoras' Theorem

Ratio and proportion

- Direct proportion/conversion
- Division in a common ratio
- Inverse proportion

Rounding

- Decimal places
- Significant figures

Linear sequences

- Generating terms of a sequence
- Finding missing terms in sequence
- Formula for n-th term

Statistics

- Mean, mode and range from a frequency table