## KEY STAGE 3 MATHEMATICS Exam Checklist

November 2019

# KS3 Topic Order

## <u>Year 10</u>

- 1. Number: Calculations and Number Equivalence
- 2. Algebra: Equations
- 3. Shape, Space & Measures: Angles and Shapes
- 4. Shape, Space & Measures: Pythagoras' Theorem
- 5. Handling Data: Data Analysis
- 6. Algebra: Sequences (not on examination)
- 7. Handling Data: Tabulation and Representation

### 1. Number: Calculations and Number Equivalence

- Understand and use BIDMAS
- Understand and calculate square roots and cube roots
- Calculate reciprocals
- Recognise and use relationships between operations, including inverse operations
- Recognise that recurring decimals are exact fractions and that some exact fractions are recurring decimals

### 2. Algebra: Equations

- Set up and solve linear equations in one unknown, including those with the unknown on both sides of the equation and equations of the form  $\frac{x}{4}+3=7$
- Use trial and improvement to find approximate solutions of equations where there is no simple method of solving them (to 1dp only)

#### 3. Shape, Space and Measures: Angles and Shapes

- Measure line segments and angles in geometric figures
- Use the sum of angles in a triangle for example, to deduce the angle sum in any polygon
- Calculate and use the sums of the interior and exterior angles of polygons

#### 4. Shape, Space and Measures: Pythagoras' Theorem

- Use Pythagoras' Theorem to find the missing side in a right-angled triangle
- Use Pythagoras' theorem in 2D problems

#### 5. Handling Data: Data Analysis

- Estimate mean from a grouped frequency distribution
- Identify the modal class and the class in which the median lies
- Choose the most appropriate average (mean, median or mode) for a given line of enquiry

#### 6. Algebra: Sequences (not on examination)

Find the nth term of a sequence where the rule is linear

## 7. Handling Data: Tabulation and Representation

- Construct and interpret a wide range of graphs and diagrams for discrete and continuous data
- Construct and interpret frequency tables and diagrams for sets of continuous data
  - Stem & Leaf
  - Bar Charts
  - Frequency Polygons
  - Line Graphs
  - Scatter Graphs
  - Distance-Time Graphs
  - Misleading graphs

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