New Syllabus Mathematics Textbook 4

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1. Cumulative Frequency Distributions

- Commutative Frequency Table
- Median, Quartiles and Percentiles
- Interquartile Range
- Summary
- Review Questions 1
- Exploration
- Problem Solving

2. Locus and Constructions

- Loci in Two Dimensions
- Intersections of Loci
- Further Loci
- Summary
- Review Questions 2
- Exploration

3. Vectors in Two Dimensions

- Scalar and Vector Quantities
- Representation of a Vector and Notation
- The Magnitude of a Vector
- Equal Vectors
- Column Vectors
- Magnitude of a Column Vector
- Equality of Column Vectors
- Negative Vectors
- Addition of Vectors
- Addition of Column Vectors
- Zero Vectors
- Difference of Two Vectors
- Subtraction of Column Vectors
- Scalar Multiple of a Vector
- Parallel Vectors
- Expression of a Given Vector in Terms of Two Vectors
- Solving Problems Involving Column Vectors
- Position Vectors
- Solving Problems Involving Position Vectors
- Summary
- Review Questions3
- Problem Solving

4. Geometrical Transformation

- Reflection
- Rotation
- Translation
- Summary
- Review Questions 4

- Exploration

5. Further Geometrical Transformations

- Enlargement
- Revision
- Finding the Centre of Enlargement
- Area of Enlarged Figures
- Stretch
- Two-way Stretch of Double Stretch
- Shear
- Combining Transformations
- Summary
- Review Questions 5
- Problem Solving
- Exploration

6. Probability

- Introduction
- Experiments
- Classical Definition of Probability
- Sample Space and Events
- Possible Outcomes in the Sample Space
- Possibility Diagrams
- Tree Diagrams
- Addition of Probabilities
- Multiplication of Probabilities - Probability Tree
- Summary
- Review Questions 6
- Problem Solving

7. Revision

- Arithmetic
- Algebra I
- Algebra II
- Mensuration
- Geometry
- Coordinate Geometry and Inequalities
- Graphs and Kinematic Problems
- Angle Properties of Cicles
- Trigonometry
- Number Sequence and Problem Solving
- Locus and Constructions
- Vectors
- Probability
- Statistics
- Geometrical Transformation

Specimen Papers A to C

Answers

Appendix A (Sample Worksheet for IT Open Tool, Geometer's Sketch Pad)