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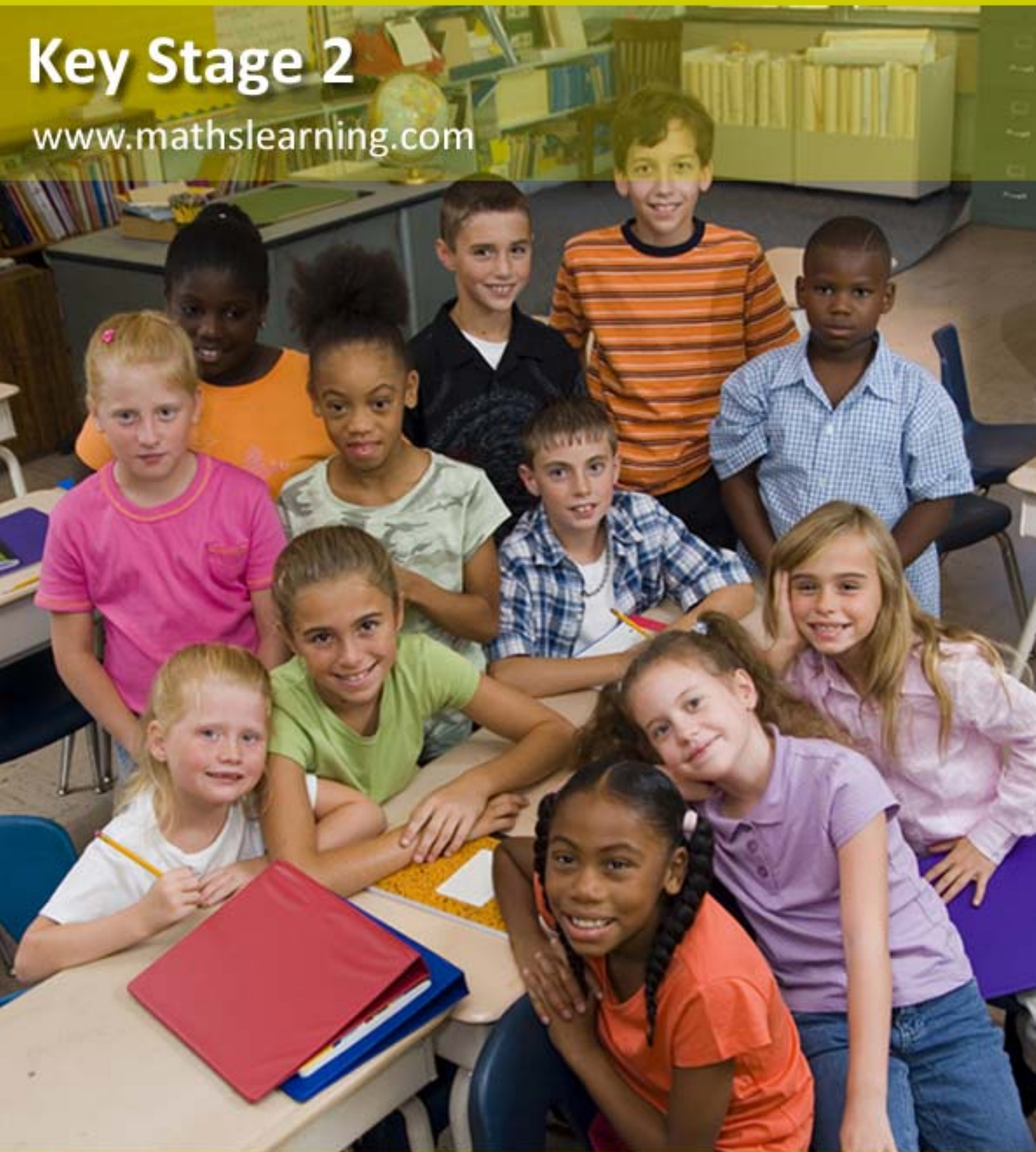
Lumen artis mathematicae

Years 5, 6 & 7

Author: R. M. O'Toole

Key Stage 2

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Contents List

The Author

R.M. O’Toole B.A., M.C., M.S.A., C.I.E.A.

The author is an experienced state examiner, teacher, lecturer, consultant and author in mathematics.

She is an affiliate member of The Chartered Institute of Educational Assessors and a member of The Society of Authors.

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Email address: enquiries@mathslearning.com

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	Order of Operations
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	Integer Numbers
	Rational Numbers
	Irrational Numbers
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	Venn Diagram to illustrate Sets of Numbers

III. TYPES OF NUMBERS:

Prime Numbers

Even Numbers

Odd Numbers

Square Numbers

Cubic (or cube) Numbers

Triangular Numbers

Fibonacci Numbers

Multiple

Factor

Lowest Common Multiple (**L.C.M.**)

Highest Common Factor (**H.C.F.**)

Prime Factor

Part 2: Exercise

Part 2: Answers to Exercise

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Cayley Multiplication Table [Up to 12-times tables.]

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Equivalent Fractions

Lowest Terms

Proper Fractions

Improper Fraction

Mixed Number

Addition of Fractions

Subtraction of One Fraction from Another

Multiplication of Fractions

Division of One Fraction by Another

Finding a Fraction of a Quantity

One Quantity expressed as Fraction of Another

Worked Practical Examples: Fractions

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Place Values

Changing Decimals into Fractions

Changing Fractions into Decimals

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Unequal Sharing using Ratio

Other Types of Unequal Sharing

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Rate of Exchange

Changing Sterling into a Foreign Currency

Changing a Foreign Currency into Sterling

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Part 1: Exercise: Answers

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TIME – THE CALENDAR - SEASONS

12 – hour Clock

24 – hour Clock

Changing between 12–hour and 24–hour time

Addition of time

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Multiplication of time

Division of time

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Part 2: Exercise: Answers

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AVERAGE SPEED, DISTANCE AND TIME:

TRAVEL GRAPHS

Mnemonic (i.e. aid to memorization)

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SECTION 4: WEIGHTS_MEASURES_MEASUREMENT_SYMMETRY

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Metric / Imperial Conversions

Temperature Scales: Celsius, Fahrenheit and Kelvin

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Part 1: Answers to Exercise

2.

SHAPES

Triangles:

Scalene

Isosceles

Equilateral

Area

Quadrilaterals:

Properties of:

Square

Rectangle

Parallelogram

Rhombus

Kite

Trapezium

Other Shapes (Polygons):

Pentagon

Hexagon

Heptagon

Octagon

The Circle:

Diameter

Radius

Circumference

Area

Prism:

Solid of Constant Cross - Section

Length, Area and Volume:

Nets

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Acute

Obtuse

Reflex

Right Angle

Straight Line

Circle

Drawing Angles using a Protractor

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2.

DIRECTIONS:

Cardinal Points: N, S, E, W, NE, SE, SW, NW

Worked Examples

Part 2: Exercise

Part 2: Answers to Exercise

3.

SETS

Universal Set

Intersection of Sets

Union of Sets

Complement of a set

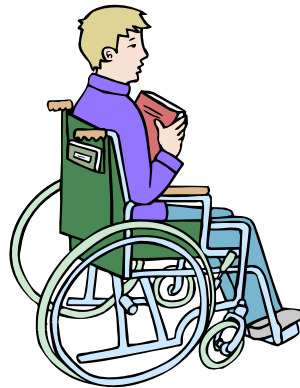
Set Notation

Venn Diagram

Worked Examples

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SECTION 6: HANDLING DATA: STATISTICS_PROBABILITY

Part

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1.

STATISTICS:

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Mean

Median

Mode

Tally Chart:

Raw Data

Frequency Table

Mean

Median

Mode

Pie Chart

Calculation of Sector Angles

Bar Graph

Range

Part 1: Exercise

Part 1: Exercise: Answers

2.

PROBABILITY

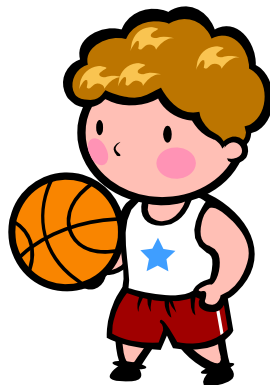
Definition of Probability

Probability Scale

Worked Examples

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Part 2: Exercise: Answers



PRACTICE PAPER 1:

[Based on Section 1.]

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Part 2: Exercise

Part 2: Answers to Exercise

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Part 3: Exercise

Part 3: Answers to Exercise

3. DIRECTED NUMBERS:

Number Line

Part 3: Exercise

Part 3: Answers to Exercise

4. ROMAN NUMERALS

5. ROUNDING OFF:

Decimal Places

Part 5: Exercise

Part 5: Exercise: Answers



PRACTICE PAPER 2:

[Based on Section 2: Number 2.]

Part

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Part 1: Exercise: Answers to Exercise

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Subtraction: Fractions

Multiplication: Decimals

Division: Decimals

Part 2: Exercise

Part 2: Exercise: Answers to Exercise

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What is a percentage?

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One Quantity as a Percentage of Another

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Part 3: Exercise: Answers to Exercise

4. RATIO

Unequal Sharing using Ratio

Other Types of Unequal Sharing

Part 4: Exercise

Part 4: Exercise: Answers

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[Based on Section 3: Number 3.]

Part

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Part 1: Exercise: Answers

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Subtraction of time

Multiplication of time

Division of time

Part 2: Exercise

Part 2: Exercise: Answers

3.

AVERAGE SPEED, DISTANCE AND TIME:

TRAVEL GRAPHS

Mnemonic (i.e. aid to memorization)

Distance / Time Graphs

Worked Examples

Part 3: Exercise

Part 3: Exercise: Answers



PRACTICE PAPER 4:

[Based on Section 4.]

WEIGHTS_MEASURES_MEASUREMENT_SYMMETRY

Part

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1.

WEIGHTS AND MEASURES

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Radius

Circumference

Area

Prism:

Solid of Constant Cross - Section

Length, Area and Volume:

Nets

Symmetry:

Line Symmetry

Plane Symmetry

Point Symmetry

Rotational Symmetry - Order

Part 2: Exercise

Part 2: Answers to Exercise

PRACTICE PAPER 5:

[Based on Section 5.]

ANGLES_DIRECTIONS_SETS

Part

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Obtuse

Reflex

Right Angle

Straight Line

Circle

Drawing Angles using a Protractor

Part 1: Exercise

Part 1: Answers to Exercise

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DIRECTIONS:

Cardinal Points: N, S, E, W, NE, SE, SW, NW

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SETS

Universal Set

Intersection of Sets

Union of Sets

Complement of a set

Set Notation

Venn Diagram

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PRACTICE PAPER 6:

[Based on Section 6.]

HANDLING DATA: STATISTICS_PROBABILITY

Part

Contents

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Median

Mode

Tally Chart:

Raw Data

Frequency Table

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Median

Mode

Pie Chart

Calculation of Sector Angles

Bar Graph

Range

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Part 1: Exercise: Answers

2. PROBABILITY

Definition of Probability

Probability Scale

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Part 2: Exercise: Answers

PRACTICE PAPER 7:

[Based on whole Key Stage 2 Course.]

KEY STAGE 2 PRACTICE PAPERS: MISCELLANEOUS PAPERS (WITH ANSWERS)

PRACTICE PAPER 8:

[Based on whole Key Stage 2 Course.]

KEY STAGE 2 REVISION TESTS: MAIN TOPIC AREAS (WITH ANSWERS)