Revision contents

Factors, multiples and primes	
Ordering integers and decimals	
Calculating with negative numbers	
Multiplication and division	
Calculating with decimals	
Rounding and estimation	
Converting between fractions, decimals and percentages	
Ordering fractions, decimals and percentages	
Calculating with fractions	
Percentages	
Order of operations	
Exact solutions	
Indices and roots	
Standard form	
Listing strategies	
Review it!	

Topic 2

То

ALGEBRA

Understanding expressions, equations, formulae and identities	42
Simplifying expressions	43
Collecting like terms	44
Using indices	45
Expanding brackets	47
Factorising	49
Substituting into expressions	52
Writing expressions	54
Solving linear equations	55
Writing linear equations	58
Linear inequalities	60
Formulae	63
Linear sequences	67
Non-linear sequences	70
Show that	71
Number machines	72
Coordinates and midpoints	73
Straight-line graphs	74
Solving simultaneous equations	80
Quadratic graphs	83
Solving quadratic equations	86
Cubic and reciprocal graphs	87
Drawing and interpreting real-life graphs	89
Review it!	94

Topic 3

RATIO, PROPORTION AND RATES OF CHANGE

Units of measure	96
Ratio	98
Scale diagrams and maps	101
Fractions, percentages and proportion	103
Direct proportion	105

Inverse proportion	108
Working with percentages	110
Compound units	114
Review it!	116

Topic 4

GEOMETRY AND MEASURES

Measuring and drawing angles	119
Using the properties of angles	121
Using the properties of polygons	126
Using bearings	128
Properties of 2D shapes	130
Congruent shapes	132
Constructions	134
Drawing circles and parts of circles	137
Loci	138
Perimeter	140
Area	143
Sectors	146
3D shapes	147
Volume	150
Surface area	152
Using Pythagoras' theorem	154
Trigonometry	157
Exact trigonometric values	160
Transformations	162
Similar shapes	167
Vectors	169
Review it!	171

Topic 5

PROBABILITY

STATISTICS

Basic probability	174
Two-way tables and sample space diagrams	178
Sets and Venn diagrams	181
Frequency trees and tree diagrams	185
Expected outcomes and experimental probability	188
Review it!	191

Topic 6

Data and sampling	194
Frequency tables	197
Bar charts and pictograms	200
Pie charts	203
Measures of central tendency: mode	206
Measures of central tendency: median	208
Measures of central tendency: mean	210
Range	213
Comparing data using measures of central tendency and range	215
Time series graphs	217
Scatter graphs	219
Review it!	222

Answers for Revision Guide

225

Exam Practice contents

NUMBER	
actors, multiples and primes	
Drdering integers and decimals	
Calculating with negative numbers	
Aultiplication and division	
Calculating with decimals	
Rounding and estimation	
Converting between fractions, decimals and percentages	
Ordering fractions, decimals and percentages	
Calculating with fractions	
Percentages	
Order of operations	
xact solutions	
ndices and roots	
Standard form	
isting strategies	

Topic 2

Торіс

ALGEBRA

Understanding expressions, equations, formulae and identities	259
Simplifying expressions	260
Collecting like terms	261
Using indices	262
Expanding brackets	263
Factorising	264
Substituting into expressions	265
Writing expressions	266
Solving linear equations	267
Writing linear equations	268
Linear inequalities	269
Formulae	270
Linear sequences	271
Non-linear sequences	272
Show that	274
Number machines	275
Coordinates and midpoints	276
Straight-line graphs	278
Solving simultaneous equations	281
Quadratic graphs	283
Solving quadratic equations	286
Cubic and reciprocal graphs	287
Drawing and interpreting real-life graphs	289

Topic 3

RATIO, PROPORTION AND RATES OF CHANGE

Units of measure	291
Ratio	292
Scale diagrams and maps	293
Fractions, percentages and proportion	294
Direct proportion	295
Inverse proportion	296

Working with percentages	
Compound units	

2	9	8
2	9	9

Topic 4

GEOMETRY AND MEASURES

Measuring and drawing angles	300
Using the properties of angles	301
Using the properties of polygons	303
Using bearings	304
Properties of 2D shapes	305
Congruent shapes	306
Constructions	307
Drawing circles and parts of circles	309
Loci	310
Perimeter	312
Area	313
Sectors	314
3D shapes	315
Volume	316
Surface area	318
Using Pythagoras' theorem	319
Trigonometry	320
Exact trigonometric values	321
Transformations	322
Similar shapes	323
Vectors	325

Topic 5

PROBABILITY

Basic probability	326
Two-way tables and sample space diagrams	328
Sets and Venn diagrams	330
Frequency trees and tree diagrams	332
Expected outcomes and experimental probability	334

Topic 6

STATISTICS	
Data and sampling	
Frequency tables	
Bar charts and pictograms	
Pie charts	
Measures of central tendency: mode	
Measures of central tendency: median	
Measures of central tendency: mean	
Range	
Comparing data using measures of central tendency and range	
Time series graphs	
Scatter graphs	
Practice paper (non-calculator)	
Practice paper (calculator)	
Answers for Exam Practice	