

## Number

	Topics	Clip Number	R	A	G
Arithmetic	Fraction arithmetic	65 – 70, 72			
	Decimal arithmetic	47 – 51, 135, 136			
Whole number theory	Types of numbers	25, 99, 100, 101, 111			
	Factors and multiples	27, 31 – 36			
Calculator	Quotients	129			
Combining arithmetic operations	Priority of operations	24, 44, 120, 150			
Fractions	Decimals and fractions	52, 73			
	Recurring decimals	53, 54			
Percentages	Percentage calculations	84 – 87			
	Percentage change	88, 90, 91, 92, 94, 95, 97, 98			
	Reverse percentages	96			
Powers and roots	Index notation	102			
	Powers of integers	99 – 103			
	Laws of indices	104 – 110			
	Surds and exact calculations	113 – 119			
Approximation and estimation	Rounding	17, 56, 130, 133			
	Upper and lower bounds	137, 138, 139			
	Estimation	131, 132			
Standard form	Standard form representation	122, 123, 124			
	Standard form calculation	125 – 128			
Equivalence	Decimal, fractions and percentages	52, 55, 74, 76, 82, 83, 149			

## Ratio, proportion, and rates of change

	Topics	Clip Number	R	A	G
Ratios	Simplify ratios	329, 331			
	Use ratio	332 – 338			
	Calculate with proportions	330			
Direct and inverse proportion	Direct proportion	339, 340, 341, 343, 344, 345, 348, 739 – 742			
	Solve ratio and proportion problems	332 – 338			
	Inverse proportion	342, 346 – 348			
Growth and decay	Growth and decay problems	94, 95, 98, 771, 804 – 811			

## Algebra

	Topics	Clip Number	R	A	G
Algebraic expressions	Simplifying algebraic expressions	156 – 159, 173 – 175			
	Factorise expressions including quadratic expressions	168 – 171, 223 – 228			
	Multiplying out brackets	160 – 166			
	Completing the square	235 – 237			
	Algebraic fractions	172, 229			
	Formulate algebraic expressions	151 – 153			
	Rearranging formulae	280 – 287			
	Substitute values into expressions	780 – 787			
	Use of brackets	160 – 166			
Algebraic formulae	Use kinematics formulae	788, 789			
Algebraic equations	Linear equations	178 – 189			
	Solving inequalities	269 – 272			
	Quadratic equations	230 – 234, 238, 239, 241, 242, 244, 245			
	Approximate solution by iteration	322			
Algebraic inequalities	Graphical inequalities	273 – 276			
Graphs of equations and functions	Features and types of graphs	208, 209, 251 – 257, 298 – 302, 800, 801			
	Trigonometric graphs	303 – 306			
	Equations of circles	778, 779			
	Transformations of graphs	307 – 313			
	Drawing and interpreting graphs	205 – 217, 251 – 257, 298 – 306, 800, 801, 894 – 897			
	Solution set for inequalities	273 – 276			
	Distance/speed-time graphs	874 – 886			
Straight line graphs	Parallel and perpendicular lines	214, 215, 216			
	Equation of a line	205 – 213			
Proof	Algebraic proofs	325, 326, 327			

## Geometry and measures

	Topics	Clip Number	R	A	G
Conventions, notation and terms	Properties of a triangle	823			
	Circle terms	592			
Angles	Angles in polygons	561 – 565			
	Angle properties of parallel lines	481, 482, 483, 490, 491			
Similarity	Length, area and volume scale factors of similar figures	609 – 621			
Units of measurement	Units of money, speed, distance, length, time, density, mass, volume and area.	692, 693, 694, 705, 706, 709, 710, 711, 716 – 733			
Compound units	Rates	738			
Plane isometric transformations	Transformations	637 – 657			
Congruency	Reasons for congruency	682, 684 – 690			
Volume and surface area calculations	Volume and surface area including cuboid, prism, pyramid and sphere	568 – 571, 579 – 585, 590			
Constructions and loci	Construct loci	674 – 679			
	Maps, bearings and scale drawings	492 – 496, 864 – 871			
Circle geometry	Standard circle theorems	593 – 606			
	Area and circumference of a circle and length of an arc	534 – 545			
Area calculations	Area of a rectangle	554			
	Area of a triangle	557, 558			
Triangle mensuration	Trigonometry	508 – 515, 848 – 853			
	Pythagoras' Theorem	497 – 507			
	Exact trigonometric ratios	845 – 847			
	Solving non-right-angled triangles	516 – 533			

## Probability

	Topics	Clip Number	R	A	G
Basic probability and experiments	Relative frequency	356, 357			
	Equally likely outcomes and probability	351 – 355			
Combined events and probability diagrams	Enumeration	670 – 673			
	Sample spaces	358, 359			
	Venn diagrams and sets	370 – 380, 383 – 388			
	Calculation with the laws of probability	353 – 363			
	Conditional probability	364 – 367, 389, 390			

## Statistics

	Topics	Clip Number	R	A	G
Analysing Data	Graphical misrepresentation	425, 453, 454			
Interpreting and representing data	Pie chart	427, 428, 429			
	Collecting data	392, 393, 394, 401, 402, 403, 422, 423, 424			
	Scatter diagrams and outliers	453, 454			
	Cumulative frequency	437 – 440			
	Line graph and time series	450, 451, 452			