

Number

| | Topics | Clip Number | R | A | G |
|------------------------------|---------------------------------|----------------|---|---|---|
| Arithmetic | Negative number | 38 – 44 | | | |
| Fractions | Fraction of an amount | 77 | | | |
| | Fraction arithmetic | 65 – 70, 80 | | | |
| | Recurring decimal to fraction | 53, 54 | | | |
| Properties | Product of prime factors | 29, 30, 32, 35 | | | |
| | Laws of indices | 102 – 110 | | | |
| | Negative and fractional indices | 104 – 110 | | | |
| Powers and roots | Simplification of surds | 113 – 119 | | | |
| Standard form | Conversion | 122, 123, 124 | | | |
| | Calculation | 125, 126, 127 | | | |
| Approximation and estimation | Error interval | 774 – 777 | | | |
| | Bounds | 137, 138, 139 | | | |
| Other | Use of a calculator | 129 | | | |
| | Product rule for counting | 671, 672, 673 | | | |

Algebra

| | Topics | Clip Number | R | A | G |
|----------------------------|--|-----------------------------------|---|---|---|
| Manipulation | Simplification | 156 – 159 | | | |
| | Expansion of bracket | 160, 161 | | | |
| | Factorisation | 168 – 171, 223 – 228 | | | |
| | Laws of indices | 173, 174, 175 | | | |
| | Substitute values | 278, 279, 780 – 789 | | | |
| | Change subject of a formula | 280 – 287 | | | |
| | Forming an expression | 151, 152, 153 | | | |
| | Expansion of brackets | 162 – 166 | | | |
| | Difference of two squares | 165, 224, 225 | | | |
| | Algebraic fractions | 159, 170, 172, 229 | | | |
| Equations and inequalities | Linear equation | 177 – 189 | | | |
| | Form an equation | 176 | | | |
| | Set up and solve equation | 188 | | | |
| | Linear inequality | 265 – 272 | | | |
| | Quadratic equation | 230 – 234, 238 – 242, 244, 245 | | | |
| | Quadratic inequality | 277 | | | |
| | Equations of parallel lines | 214 | | | |
| | Equation of a tangent to a circle | 320 | | | |
| | Simultaneous equations linear/quadratic | 190 – 195, 218, 219, 246, 259 | | | |

Algebra (continued)

| | Topics | Clip Number | R | A | G |
|-----------|---|---------------------|---|---|---|
| Graphs | Coordinates | 199, 200 | | | |
| | Quadratic graph | 251 – 257, 260 | | | |
| | Gradient of a straight line graph | 201 – 204, 207, 210 | | | |
| | Gradients of parallel and perpendicular lines | 214, 215 | | | |
| | Speed-time graph | 880 – 886 | | | |
| | Gradient of a curve | 887 – 890 | | | |
| | Transformations of functions | 307 – 313 | | | |
| | Graphs of trigonometric functions | 303 – 306 | | | |
| Functions | Inverse and composite functions | 293 – 297 | | | |

Ratio, proportion, and rates of change

| | Topics | Clip Number | R | A | G |
|-------------------|-----------------------------|--|---|---|---|
| Conversions | Time | 709, 710, 711 | | | |
| | Area | 700, 701 | | | |
| Percentages | Percentage of an amount | 84, 85, 86 | | | |
| | Percentage decrease | 90, 91, 92, 97 | | | |
| | Depreciation | 95, 808 – 811 | | | |
| | Reverse percentage | 96 | | | |
| Ratio | Write as a ratio | 328, 329 | | | |
| | Use of ratio | 335 – 338 | | | |
| | 1 : n form | 331 | | | |
| | Share in a ratio | 332 – 335 | | | |
| | Ratio to fraction | 330 | | | |
| Proportion | Direct proportion | 339, 340, 341, 343, 344, 345, 348, 739 – 742 | | | |
| | Currency conversion | 707, 708 | | | |
| | Inverse proportion | 342, 346, 347, 348 | | | |
| | Equations of proportion | 343 – 347 | | | |
| Compound Measures | Average speed | 716 – 724, 876, 877 | | | |
| | Density | 725 – 733 | | | |
| | Pressure | 734 – 737 | | | |
| Growth and decay | General iterative processes | 322 | | | |

Geometry and measures

| | Topics | Clip Number | R | A | G |
|---------------------------------------|----------------------------|----------------------|---|---|---|
| Shape | Transformations | 637 – 657 | | | |
| Angles | Angles in a polygon | 560 – 565 | | | |
| | Circle theorems | 593 – 606, 816 – 820 | | | |
| Length, area and volume | Area of a rectangle | 554, 555 | | | |
| | Area of a triangle | 557, 558 | | | |
| | Area of a trapezium | 559 | | | |
| | Area of a sector | 546, 547 | | | |
| | Surface area of a cuboid | 584, 589, 590 | | | |
| | Volume of a cube | 568, 569, 583 | | | |
| | Volume of composite solid | 582 | | | |
| | Similar triangles | 611, 612, 613 | | | |
| Pythagoras's Theorem and Trigonometry | Pythagoras's Theorem | 497 – 507 | | | |
| | Trigonometry | 508 – 515 | | | |
| | Sine and Cosine Rules | 521 – 533 | | | |
| | Trigonometry in 3-D | 854 – 863 | | | |
| | Exact trigonometric values | 845 | | | |
| Vectors | Column vectors | 623 – 627 | | | |
| | Vector geometry | 628 – 636 | | | |

Probability

| | Topics | Clip Number | R | A | G |
|-------------|---------------------------------|----------------|---|---|---|
| Probability | Probability | 351 – 359 | | | |
| | Venn diagram | 372 – 380 | | | |
| | Probability from a Venn diagram | 383 – 388, 391 | | | |
| | Independent combined events | 360 – 363 | | | |
| | Dependent combined events | 364 – 367 | | | |

Statistics

| | Topics | Clip Number | R | A | G |
|-------------|----------------------------|----------------------|---|---|---|
| Diagrams | Frequency polygon | 441 | | | |
| | Cumulative frequency graph | 437 – 440 | | | |
| | Box plot | 434, 435, 436, 440 | | | |
| | Histogram | 442 – 449 | | | |
| Measures | Mean | 405 – 408, 417 – 421 | | | |
| | Lower and upper quartiles | 411 | | | |
| | Inter-quartile range | 412 | | | |
| Populations | Compare distributions | 432, 433, 436, 439 | | | |
| | Capture-recapture method | 872, 873 | | | |