Higher paper 1

| Paper 1H-grouped by content area |  |
| :---: | :---: |
| Number (*see Ratio - some overlap of topic areas) |  |
| Fractions | Fraction of an amount |
|  | Fraction arithmetic |
|  | Recurring decimal to fraction |
| Properties | Product of prime factors |
|  | Negative and fractional indices |
| Powers and roots | Simplification of surds |
| Standard Form | Conversion |
|  | Calculation |
| Algebra |  |
| Manipulation | Simplification |
|  | Expansion of brackets |
|  | Algebraic fractions |
| Equations and inequalities | Linear inequality |
|  | Form an equation |
|  | Quadratic equation |
|  | Equation of a tangent to a circle |
| Graphs | Quadratic graph |
|  | Speed-time graph |
|  | Gradients of parallel and perpendicular lines |
|  | Gradient of a curve |


| Ratio, proportion and rates of change ('see Number - some overlap of topic areas) |  |  |  |
| :--- | :--- | :---: | :---: |
| Percentages | Percentage of an amount |  |  |
| Ratio | Write as a ratio |  |  |
|  | Use of ratio |  |  |
|  | Share in a ratio |  |  |
|  | Ratio to fraction |  |  |
| Proportion | Equations of proportion |  |  |
| Compound Measures | Density |  |  |
| Geometry and measures | Angles in a polygon |  |  |
| Angles | Area of a triangle |  |  |
| Length, area and volume | Volume of a cube |  |  |
| Surface area of a cuboid |  |  |  |
|  | Area of a sector |  |  |
| Pythagoras's Theorem and Trigonometry | Pythagoras's Theorem |  |  |
| Exact trigonometric values |  |  |  |
| Vectors | Vector geometry |  |  |
| Probability |  |  |  |
| Probability | Probability |  |  |
| Statistics | Independent combined events |  |  |
| Measures |  |  |  |
|  | Cumulative frequency graph |  |  |
|  | Inter-quartile range |  |  |
|  |  |  |  |


| Paper 2H-grouped by content area |  |
| :---: | :---: |
| Number (*see Ratio - some overlap of topic areas) |  |
| Approximation and estimation | Error interval |
| Other | Use of a calculator |
| Algebra |  |
| Manipulation | Simplification |
|  | Expansion of bracket |
|  | Factorisation |
|  | Laws of indices |
| Equations and inequalities | Linear equation |
|  | Equations of parallel lines |
|  | Form an equation |
|  | Quadratic inequality |
| Graphs | Coordinates |
|  | Transformations of functions |
|  | Graphs of trigonometric functions |
| Functions | Inverse and composite functions |
| Ratio, proportion and rates of change (*see Number - some overlap of topic areas) |  |
| Conversions | Area |
| Percentages | Depreciation |
| Ratio | Use of ratio |
| Proportion | Direct proportion |
|  | Currency conversion |
|  | Inverse proportion |
| Compound measures | Pressure |


| Geometry and measures |  |
| :--- | :--- |
| Shape | Transformations |
| Angles | Circle theorems |
| Length, area and volume | Area of a rectangle |
|  | Volume of composite solid |
| Pythagoras's Theorem and Trigonometry | Sine and Cosine Rules |
| Probability |  |
| Probability | Venn diagram |
|  | Probability from a Venn diagram |
| Statistics | Box plot |
| Diagrams | Lower and upper quartiles |
| Measures | Compare distributions |
| Populations | Capture-recapture method |

Higher paper 3

| Paper 3H-grouped by content area |  |
| :---: | :---: |
| Number (*see Ratio - some overlap of topic areas) |  |
| Arithmetic | Negative number |
| Properties | Laws of indices |
| Approximation and estimation | Bounds |
| Other | Product rule for counting |
| Algebra |  |
| Manipulation | Simplification |
|  | Expansion of bracket |
|  | Substitute values |
|  | Difference of two squares |
|  | Expansion of brackets |
|  | Change subject of a formula |
|  | Forming an expression |
|  | Algebraic fractions |
| Equations and inequalities | Set up and solve equation |
|  | Simultaneous equations linear/quadratic |
| Graphs | Gradient of a straight line graph |
| Ratio, proportion and rates of change (*see Number - some overlap of topic areas) |  |
| Conversions | Time |
| Percentages | Percentage decrease |
|  | Depreciation |
|  | Reverse percentage |


| Ratio | Write as a ratio |
| :--- | :--- |
|  | $1: n$ form |
|  | Share in a ratio |
| Proportion | Direct proportion |
| Compound Measures | Average speed |
| Growth and decay | General iterative processes |
| Geometry and measures | Circle theorems |
| Angles | Area of a trapezium |
| Length, area and volume | Similar triangles |
| Pythagoras's Theorem and Trigonometry | Pythagoras's Theorem |
|  | Trigonometry |
| Trigonometry in 3-D |  |
| Vectors | Column vectors |
| Probability |  |
| Probability | Dependent combined events |
| Statistics |  |
| Diagrams | Frequency polygon |
|  | Histogram |
|  |  |
|  |  |

