Mathi Moon \%.) Higher GCSE Revision Checklist (Part 1 of 5)
Number

| Approximation and EstIMATION | R | A | G | Rounding |
| :---: | :---: | :---: | :---: | :---: |
|  | R | A | G | Estimation |
|  | R | A | G | Bounds |
|  | R | A | G | Error intervals |
| Arithmetic | R | A | G | Four Operations |
|  | R | A | G | Negative numbers |
| Fractions | R | A | G | Equivalent fractions |
|  | R | A | G | Fraction arithmetic |
|  | R | A | G | Fractions of amounts |
|  | R | A | G | One amount as a fraction of another |
|  | R | A | G | Ordering fractions, decimals and percentages |
|  | R | A | G | Recurring decimals to fractions |
| Powers and roots | R | A | G | Square and cube numbers and roots |
|  | R | A | G | Simplifying surds |
|  | R | A | G | Laws of indices |
|  | R | A | G | Negative and fractional indices |
|  | R | A | G | Product of prime factors |
| Number properties | R | A | G | Factors and multiples |
|  | R | A | G | Lowest Common Multiple and Highest Common Factor |
|  | R | A | G | Place value and ordering integers |
|  | R | A | G | Product of prime factors |
| Standard form | R | A | G | Calculations |
|  | R | A | G | Converting |
| Other | R | A | G | Using a calculator |
|  |  |  |  |  |

## Algebra

| Equations and INEQUALITIES | R | A | G | Equations of parallel lines |
| :---: | :---: | :---: | :---: | :---: |
|  | R | A | G | Forming an equation |
|  | R | A | G | Linear equations |
|  | R | A | G | Linear inequalities |
|  | R | A | G | Quadratic equations |
|  | R | A | G | Quadratic inequalities |
|  | R | A | G | Setting up and solving equations |
|  | R | A | G | Simultaneous equations, linear and quadratic |
|  | R | A | G | Equation of a tangent to a circle |
| Functions | R | A | G | Number machines |
|  | R | A | G | Inverse and composite functions |
| Graphs | R | A | G | Coordinates |
|  | R | A | G | Gradient of a curve |
|  | R | A | G | Straight line graphs |
|  | R | A | G | Gradients of parallel and perpendicular lines |
|  | R | A | G | Graphs of trigonometric functions |
|  | R | A | G | Quadratic graphs |
|  | R | A | G | Speed-time graphs |
|  | R | A | G | Transformations of functions |
| Manipulation | R | A | G | Algebraic fractions |
|  | R | A | G | Changing the subject of a formula |
|  | R | A | G | Difference of two squares |
|  | R | A | G | Expanding brackets, single and double |
|  | R | A | G | Factorising |
|  | R | A | G | Forming and expression |
|  | R | A | G | Laws of indices |
|  | R | A | G | Simplifying |
|  | R | A | G | Substitution |
| Sequences | R | A | G | Linear sequences |
|  | R | A | G | Quadratic sequences |
|  | R | A | G | Special sequences, including Fibonacci |

Maths Moon \%) Higher GCSE Revision Checklist (Part 3 of 5)
Ratio, proportion and rates of change

| Compound measures | R | A | G | Average speed |
| :---: | :---: | :---: | :---: | :---: |
|  | R | A | G | Density |
|  | R | A | G | Pressure |
| Conversions | R | A | G | Mass, time and area |
|  | R | A | G | Length |
|  | R | A | G | Compound units |
|  | R | A | G | Scale drawings |
| Growth and decay | R | A | G | Iterative processes |
| Percentages | R | A | G | Decimals to percentages |
|  | R | A | G | Percentages to fractions |
|  | R | A | G | One quantity as a percentage of another |
|  | R | A | G | Compound and simple interest |
|  | R | A | G | Percentage increase and decrease |
|  | R | A | G | Percentage of an amount |
|  | R | A | G | Reverse percentages |
| Proportion | R | A | G | Currency conversions |
|  | R | A | G | Equations of proportion |
|  | R | A | G | Direct proportion |
|  | R | A | G | Inverse proportion |
| Ratio | R | A | G | Ratios in the form 1:n |
|  | R | A | G | Ratios to fractions |
|  | R | A | G | Sharing in a ratio |
|  | R | A | G | Using ratio |
|  | R | A | G | Writing as a ratio |

## Geometry and measures

| Angles | R | A | G | Angles in a polygon |
| :---: | :---: | :---: | :---: | :---: |
|  | R | A | G | Corresponding and alternate angles |
|  | R | A | G | Bearings |
|  | R | A | G | Vertically opposite angles, angles around a point and angles on a straight line |
|  | R | A | G | Circle theorems |
| Length, area and Volume | R | A | G | Area of a rectangle |
|  | R | A | G | Area of a circle, and sector of a circle |
|  | R | A | G | Area of parallelograms and trapeziums |
|  | R | A | G | Area of a triangle |
|  | R | A | G | Composite areas |
|  | R | A | G | Similar and congruent triangles |
|  | R | A | G | Surface area of a cuboid |
|  | R | A | G | Volume of cubes and cuboids |
|  | R | A | G | Vule and surface area of a prism |
|  | R | A | G | Volume of composite solids |
| Pythagoras' theorem AND TRIGONOMETRY | R | A | G | Using Sine, Cosine and Tangent |
|  | R | A | G | Exact trigonometric values |
|  | R | A | G | Pythagoras' Theorem |
|  | R | A | G | Sine and Cosine Rules |
|  | R | A | G | Trigonometry in 3D |
| Shape | R | A | G | Transformations |
|  | R | A | G | Plans and elevations |
|  | R | A | G | Quadrilaterals |
|  | R | A | G | Reflection, rotation and enlargement |
|  | R | A | G | Properties of triangles |
| Vectors | R | A | G | Column vectors |
|  | R | A | G | Vector geometry |

## Maths Moon

## Probability and Statistics

| Probability | R | A | G | Language of probability |
| :---: | :---: | :---: | :---: | :---: |
|  | R | A | G | Dependent combined events |
|  | R | A | G | Independent conbined events |
|  | R | A | G | Probability trees |
|  | R | A | G | Probability from a Venn diagram |
|  | R | A | G | Venn diagrams |
| Statistical diagrams | R | A | G | Bar charts |
|  | R | A | G | Box plots |
|  | R | A | G | Cumulative frequency graphs |
|  | R | A | G | Frequency tables |
|  | R | A | G | Stem and leaf diagrams |
|  | R | A | G | Two-way tables |
|  | R | A | G | Frequency polygons |
|  | R | A | G | Histograms |
| Statistical measures | R | A | G | Interquartile range |
|  | R | A | G | Lower and upper quartiles |
|  | R | A | G | Mean, Median, Mode and Range |
| Population | R | A | G | Sampling |
|  | R | A | G | Comparing distributions |

