MARICOURT CATHOLIC HIGH SCHOOL
\& SIXTH FORM CENTRE

HIGHER - Grades 4-9

## Algebra

| $\begin{gathered} \text { I can } \\ \text { do } \\ \text { this } \end{gathered}$ | Grade | Title |
| :---: | :---: | :---: |
|  | 9 | Approximate solutions to equations using iteration. |
|  | 9 | Equation of a circle |
|  | 9 | Equation of a tangent |
|  | 8 | Algebra and Proof |
|  | 8 | Gradients and area under a graph |
|  | 8 | Graphs of trigonometric functions |
|  | 8 | Quadratic equations (completing the square) |
|  | 7 | Composite functions |
|  | 7 | Expand the product of two or more binomials |
|  | 7 | Factorising difficult quadratic expressions |
|  | 7 | Geometric Sequences |
|  | 7 | Graphs of exponential functions |
|  | 7 | Quadratic equations (needing re-arrangement) |
|  | 7 | Quadratic equations (quadratic formula) |
|  | 7 | Real-life exponential graphs |
|  | 7 | Represent quadratic inequalities |
|  | 7 | Simultaneous equations (nonlinear) |
|  | 7 | Solve quadratic inequalities |
|  | 7 | Translations and reflections of a function |
|  | 7 | Turning points \& completing the square |
|  | 6 | Algebraic fractions |
|  | 6 | Identifying parallel lines |
|  | 6 | Inverse functions |
|  | 6 | Linear inequalities in two variables |
|  | 6 | nth term of a quadratic sequence |
|  | 6 | Quadratic equations (factorisation) |


| $\begin{gathered} \text { I can } \\ \text { do } \end{gathered}$ this | Grade | Title |
| :---: | :---: | :---: |
|  | 6 | Quadratic equations (graphical methods) |
|  | 6 | Represent linear inequalities |
|  | 6 | Simultaneous equations (linear) |
|  | 5 | Algebraic argument |
|  | 5 | Algebraic terminology |
|  | 5 | Cubic and Reciprocal graphs |
|  | 5 | Deduce quadratic roots algebraically |
|  | 5 | Derive an equation |
|  | 5 | Equation of a line |
|  | 5 | Expand the product of two binomials |
|  | 5 | Factorising quadratic expressions |
|  | 5 | Fibonacci, quadratic and simple geometric sequences |
|  | 5 | Graphical solution to equations |
|  | 5 | Inequalities on number lines |
|  | 5 | Linear equations |
|  | 5 | Quadratic graphs |
|  | 5 | Reciprocal real-life graphs |
|  | 5 | Simplify indices |
|  | 5 | Simplify surds |
|  | 5 | Solve linear inequalities in one variable |
|  | 5 | Writing formulae and expressions |
|  | 4 | Changing the subject |
|  | 4 | Collecting like terms |
|  | 4 | Expressions |
|  | 4 | Factorise single bracket |
|  | 4 | Finding the equation of a line |
|  | 4 | Graphs of linear functions |
|  | 4 | Graphs of quadratic functions |
|  | 4 | Linear equations one unknown |
|  | 4 | Multiplying single brackets |
|  | 4 | Non-standard real life graphs |
|  | 4 | nth term of a linear sequence |
|  | 4 | Number machines |
|  | 4 | Substitution |
|  | 4 | Using " $\mathrm{y}=\mathrm{mx}+\mathrm{c}$ " |

## Geometry and Measures

| $\begin{gathered} \text { I can } \\ \text { do } \\ \text { thi } \end{gathered}$ | Grade | Title |
| :---: | :---: | :---: |
|  | 8 | Circle theorems |
|  | 8 | Vector arguments and proof |
|  | 7 | Area of a triangle |
|  | 7 | Cosine Rule |
|  | 7 | Pythagoras and trig 2D and 3D |
|  | 7 | Sine Rule |
|  | 6 | Combined transformations |
|  | 6 | Congruence and Similarity |
|  | 6 | Standard trigonometric ratios |
|  | 5 | Arc lengths and sectors |
|  | 5 | Derive triangle results |
|  | 5 | Enlargements and negative SF |
|  | 5 | Loci |
|  | 5 | Pythagoras |
|  | 5 | Similarity and Congruence |
|  | 5 | Standard constructions |
|  | 5 | Surface Area |
|  | 5 | Trigonometric ratios |
|  | 5 | Volume |
|  | 4 | Alternate and corresponding angles |
|  | 4 | Area of a circle |
|  | 4 | Areas of composite shapes |
|  | 4 | Areas of triangles, trapezia and parallelograms |
|  | 4 | Bearings |
|  | 4 | Circle terminology |
|  | 4 | Circumference of a circle |
|  | 4 | Congruent triangles |
|  | 4 | Enlargements and fractional SF |
|  | 4 | Perimeter of 2D shapes |
|  | 4 | Plans and elevations |
|  | 4 | Polygons |
|  | 4 | Solve geometrical problems |
|  | 4 | Vector arithmetic |
|  | 4 | Volume of prisms |

## Statistics

| I can <br> do <br> this | Grade | Title |
| :--- | :---: | :--- |
|  | 6 | Boxplots |
|  | 6 | Cumulative frequency |
|  | 6 | Histograms with unequal class <br> widths |
|  | 6 | Quartiles and Interquartile Range |
|  | 5 | Histograms with equal class <br> widths |
|  | 5 | Scatter graphs |
|  | 4 | Comparing data using graphs |
|  | 4 | Comparing Distributions |
|  | 4 | Correlation |
|  | 4 | Population |
|  | 4 | Sampling |
|  | 4 | Scatter Diagrams |
|  | 4 | Time series |

## Probability

| I can <br> do <br> this | Grade | Title |
| :--- | :---: | :--- |
|  | 7 | Conditional Probability |
|  | 5 | Probability of dependent events |
|  | 5 | Probability of independent events |
|  | 4 | Mutually exclusive sum |
|  | 4 | Relative Frequency |
|  | 4 | Tables and Grids |
|  | 4 | Theoretical Probability |
|  | 4 | Unbiased Samples |
|  | 4 | Venn Diagrams |

## Number

| $\begin{gathered} \text { I can } \\ \text { do } \\ \text { thi } \end{gathered}$ | Grade | Title |
| :---: | :---: | :---: |
|  | 8 | Surds |
|  | 7 | Index Laws (negative and fractional) |
|  | 7 | Product rule |
|  | 7 | Recurring Decimals |
|  | 7 | Upper and lower bounds |
|  | 6 | Finance 1 |
|  | 6 | Powers and Roots |
|  | 6 | Product of prime factors |
|  | 6 | Using Pi |
|  | 5 | Calculating with fractions |
|  | 5 | Error intervals |
|  | 5 | Index Laws |
|  | 5 | Limits of accuracy |
|  | 4 | Adding and subtracting fractions |
|  | 4 | Checking calculations |
|  | 4 | Compound measures |
|  | 4 | Converting metric units |
|  | 4 | Estimation |
|  | 4 | Fractions and percentages |
|  | 4 | Fractions and ratio problems |
|  | 4 | Interpret calculator displays |
|  | 4 | LCM and HCF |
|  | 4 | Multiples and factors |
|  | 4 | Multiplying fractions |
|  | 4 | Operations |
|  | 4 | Order of operations |
|  | 4 | Powers |
|  | 4 | Rounding |
|  | 4 | Standard Form |
|  | 4 | Terminating decimals and fractions |



Ratio, Proportion and rates of change

| I can <br> do <br> this | Grade | Title |
| :--- | :---: | :--- |
|  | 9 | Gradients and the rate of change |
|  | 7 | General iterative processes |
|  | 6 | Direct and inverse proportion |
|  | 5 | Compound Units |
|  | 5 | Gradient \& the rate of change |
|  | 5 | Growth and decay |
|  | 5 | Interpret Proportion |
|  | 5 | Percentage change |
|  | 5 | Problems with compound units |
|  | 5 | Scale factors and similarity |
|  | 5 | Simple Interest and Financial <br> Maths |
|  | 5 | Solve Proportion Problems |
|  | 4 | Compare Fractions, Decimals and <br> Percentages |
|  | 4 | Compare lengths, area, volume |
|  | 4 | Comparing quantities as a ratio |
|  | 4 | Division of a quantity as a ratio |
|  | 4 | Express one quantity as a \% of <br> another |
|  | 4 | Percentage change |
|  | 4 | Problems involving ratio |
|  | 4 | Proportion and ratio |
|  | 4 | Ratio and fractions |
|  | 4 | Ratio Sharing |

## Exam details:

Edexcel GCSE Mathematics A - Higher

## Exam Dates:

Paper 1 (non-calc) - Friday 19 ${ }^{\text {th }}$ May 2023
Paper 2 (calc) - Tuesday 6th June 2023
Paper 3 (calc) - Wednesday $14^{\text {th }}$ June 2023
All papers 90 mins each

