# Advance information June 2022 

Level 2 Certificate in Further Mathematics (8365)

## Version 1.1*

Because of the ongoing impacts of the Coronavirus (COVID-19) pandemic, we are providing advance information on the focus of June 2022 exams to help students revise.

This is the advance information for Level 2 Certificate in Further Mathematics (8365).

## Information

- This advance information covers all examined components.
- There are no restrictions on who can use this.
- The format/structure of the papers remains unchanged.
- For each paper the list shows the major focus of questions.
- The information is presented in specification order and not in question order.
- You are not permitted to take this advance information into the exam.


## Advice

- The following areas of content are suggested as key areas of focus for revision and final preparation, in relation to the June 2022 examinations.
- Students and teachers should consider how to revise other parts of the specification, for example to review whether other topics may provide knowledge which helps your understanding in relation to the areas being tested in June 2022.
- Students will be credited for using any relevant or appropriate knowledge from any topic areas when answering questions.


## Focus of the June 2022 exam

Paper 1 8365/1 June 2022

| Topic | Detail |
| :--- | :--- |
| Number | Percentage increase |
|  | Ratio |
|  | Rationalisation of surd |


|  | Inverse function |
| :--- | :--- |
|  | Identity |
|  | Expanding brackets |
|  | Binomial expansion |
|  | Changing subject of formula |
|  | Completing the square |
|  | Quadratic inequality |
|  | Draw graph of function |
|  | Simultaneous equations, one linear and one <br> second order |
|  | Index laws |
|  | $n$th term of sequence |
|  | Limiting value of sequence |
|  | Quadratic sequence |


| Coordinate Geometry | Equation of line |
| :--- | :--- |
|  | Length of a line |
|  | Intercept of a line |
|  | Point on circle |
|  | Equation of tangent to a circle |


| Calculus | Differentiation |
| :--- | :--- |
|  | Stationary points |


| Matrix Transformations | Matrix multiplication |
| :--- | :--- |
|  | Matrix transformations |


| Geometry | Circle theorems |
| :--- | :--- |
|  | Geometric proof |
|  | Sine rule |
|  | Pythagoras' Theorem |
|  | Trigonometrical graph |
|  | Trigonometrical value |
|  | Trigonometrical identity |

Paper 2 8365/2 June 2022

| Topic | Detail |
| :---: | :---: |
| Number | Ratio |
|  | Product rule |
| Algebra | Inequality |
|  | Expanding three brackets |
|  | Factorisation |
|  | Rational expression simplification |
|  | Factor theorem |
|  | Exponential graph recognition |
|  | Solving equations |
|  | Quadratic equation |
|  | Three simultaneous equations |
|  | Quadratic inequality |
|  | Index laws |
|  | Algebraic proof |
|  | Linear sequence |
|  |  |
| Coordinate Geometry | Equation of line |
|  | Midpoint of line |
|  | Parallel line |
|  | Equation of circle |
|  |  |
| Calculus | Rate of change |
|  | Differentiation |
|  | Gradient of curve |
|  |  |
| Matrix Transformations | Matrix multiplication |
|  |  |
| Geometry | Cyclic quadrilateral |
|  | Area of a triangle |
|  | Pythagoras' Theorem in 3D |
|  | Trigonometry |
|  | Trigonometry in 3D |
|  | Trigonometric equation |

8365/1 and 8365/2 Aggregated Content June 2022

| Topic | Detail |
| :---: | :---: |
| Number | Percentage increase |
|  | Ratio |
|  | Product rule |
|  | Rationalisation of surd |
| Algebra | Inverse function |
|  | Inequality |
|  | Identity |
|  | Expanding brackets |
|  | Expanding three brackets |
|  | Binomial expansion |
|  | Factorisation |
|  | Rational expression simplification |
|  | Changing subject of formula |
|  | Factor theorem |
|  | Completing the square |
|  | Exponential graph recognition |
|  | Draw graph of function |
|  | Simultaneous equations, one linear, one second order |
|  | Solving equations |
|  | Quadratic equation |
|  | Three simultaneous equations |
|  | Quadratic inequality |
|  | Index laws |
|  | Algebraic proof |
|  | $n$th term of sequence |
|  | Limiting value of sequence |
|  | Linear sequence |
|  | Quadratic sequence |


| Coordinate Geometry | Equation of line |
| :--- | :--- |
|  | Length of a line |
|  | Midpoint of line |
|  | Intercept of a line |
|  | Parallel line |
|  | Point on circle |
|  | Equation of circle |
|  | Equation of tangent to a circle |


| Calculus | Rate of change |
| :--- | :--- |
|  | Differentiation |
|  | Gradient of curve |
|  | Stationary points |


| Matrix Transformations | Matrix multiplication |
| :--- | :--- |
|  | Matrix transformations |


| Geometry | Circle theorems |
| :--- | :--- |
|  | Cyclic quadrilateral |
|  | Area of a triangle |
|  | Geometric Proof |
|  | Sine rule |
|  | Pythagoras' Theorem |
|  | Pythagoras' Theorem in 3D |
| Trigonometry |  |
|  | Trigonometry in 3D |
| Trigonometrical graph |  |
|  | Trigonometrical value |
|  | Trigonometrical identity |
|  | Trigonometric equation |

*This advance information has been updated. The reference Algebra - Draw graph of function was included in the aggregated version on page 4 . The reference has now also been added to paper 1 (8365/1) on page 2.

