



ORANGE HIGH SCHOOL

ASSESSMENT TASK NOTIFICATION

Subject	Year 10 5.3 Mathematics
Topic	Task 4 – End of Course Examination
Class Teacher	Mr Benson, Mrs Sood
Head Teacher	Mrs Edwards
Year	10MA1, 10MA2
Date Given	Week 3, Term 4 2022 Thursday 26/10/23
Date Due	Thursday 9 th November, Week 5, Periods One and Four
Weighting	35%

Assessment Outline

In Class Examination – 2 periods

You will have TWO PERIODS to complete the examination.

You are **NOT allowed** to bring any support material into the examination.

A formula sheet would be provided.

Period 1 – the first column.

Period 4 Columns 2 and 3.

Topics assessed:

<ul style="list-style-type: none">• Measurement• Surds & Indices• Probability• Data• Expressions, equations and linear relationships• Trigonometry<ul style="list-style-type: none">○ Trigonometric ratios○ Finding unknown angles○ Directions and bearings○ Obtuse angles and exact values○ The sine rule○ The cosine rule○ Area of a triangle	<ul style="list-style-type: none">• Quadratic expressions and quadratic equations<ul style="list-style-type: none">○ Expanding expressions○ Factorising expressions○ Factorising monic quadratic trinomials○ Factorising non-monic quadratic trinomials○ Factorising by completing the square○ Solving quadratic equations by factorising○ Using quadratic equations to solve problems○ Solving quadratic equations by completing the square○ Solving quadratic equations with the quadratic formula	<ul style="list-style-type: none">• Non-linear relationships, their functions and their graphs<ul style="list-style-type: none">○ Exploring parabolas○ Sketching parabolas using transformations○ Sketching parabolas using factorisation○ Sketching parabolas using quadratic formula and the discriminant○ Sketching parabolas by completing the square○ Sketching parabolas using the quadratic formulas and the discriminant
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Required equipment

- Black or Blue Pen or Pencil
- Eraser
- School Approved Calculator

Non-completion of Task:

If you know you are going to be away on the day that the task is due, you must make alternative arrangements with your teacher beforehand. If you are suddenly away on the day that the task is due, you must contact your teacher or Head Teacher on your return to school. Documentation will be required in both classes.

Plagiarism:

Plagiarism, the using of the work of others without acknowledgement will incur serious penalties and may result in zero award. Any cheating will also incur penalties.

Failure to follow the above procedures may result in a zero award.

The policies and procedures that are outlined on the ROSA booklet will be followed regarding the non-completion of assessment tasks.

Outcomes Assessed

- **MA5.3-13MG** applies formulas to find the surface areas of right pyramids, right cones, spheres and related composite solids
- **MA5.3-14MG** applies formulas to find the volumes of right pyramids, right cones, spheres and related composite solid
- **MA5.3-15MG** applies Pythagoras' Theorem, trigonometric relationships, the sine rule, the cosine rule and the area rule to solve problems, including problems involving three dimensions
- **MA5.3-6NA** performs operations with surds and indices
- **MA5.2-7NA** applies index laws to operate with algebraic expressions involving integer indices
- **MA5.1-13SP** calculates relative frequencies to estimate probabilities of simple and compound events.
- **MA5.2-17SP** describes and calculates probabilities in multi-step chance experiments
- **MA5.2-15SP** uses quartiles and box plots to compare sets of data, and evaluates sources of data
- **MA5.2-16SP** investigates relationships between two statistical variables, including their relationship over time
- **MA5.3-18SP** uses standard deviation to analyse data
- **MA5.3-19SP** investigates the relationship between numerical variables using lines of best fit, and explores how data is used to inform decision-making processes
- **MA5.3-5NA** selects and applies appropriate algebraic techniques to operate with algebraic expressions
- **MA5.3-7 NA** solves complex linear, quadratic, simple cubic and simultaneous equations, and rearranges literal equations
- **MA5.3-8 NA** uses formulas to find midpoint, gradient and distance on the Cartesian plane, and applies standard forms of the equation of a straight line
- **MA5.3 15MG** applies Pythagoras' theorem, trigonometric relationships, the sine rule, the cosine rule and the area rule to solve problems, including problems involving three dimensions
- **MA5.3-5NA** Selects and applies appropriate algebraic techniques to operate with algebraic expressions
- **MA5.2-6NA** Simplifies algebraic fractions, and expands and factorises quadratic expressions
- **MA5.3-7NA** Solves complex linear, quadratic, simple cubic and simultaneous equations, and rearranges literal equations
- **MA5.3-9NA** A student sketches and interprets a variety of non-linear relationships.
- **MS5.3-4NA** A student draws, interprets and analyses graphs of physical phenomenon.