

MATHEMATICS FACULTY Assessment Task 3 – Class Test Year 10 Mathematics Standard 2025

Nature of Task Written Test Date of Task Week 7 - Monday 1/9/25 Weighting 20%

Description of the Task: Task 3 – CLASS TEST

The examination will consist of 4 questions, each worth 10 marks.

Total for Task 1 – 40 marks

In STANDARD (completed by 10MAT05, 10MAT06, 10MAT12, 10MAT13), you will be assessed on how well you understand the following topics:

Topic 6 – Trigonometry C

- Solve 3-dimensional problems involving right-angled triangles.
- Apply the sine, cosine and area rules to any triangle and solve related problems.

Topic 7 – Data Analysis B

- Identify and describe numerical data sets involving 2 variables.
- Represent bivariate data using a scatter plot.
- Interpret scatter plots of bivariate data.
- Use a scatter plot to comment on the association between variables and describe form, strength and direction.
- Recognise correlation and know that it does not indicate causation.
- Create a line of best fit by eye on a scatter plot.
- Make predictions using a line of best fit between (interpolation) and beyond (extrapolation) known data values.

Topic 8 – Financial B

- Use the Compound formula to solve problems.
- Compare simple interest with compound interest in practical situations.
- Use the Depreciation formula to solve problems.

Topic 9 – Linear Relationships B

- Recognise and interpret the gradient-intercept form, y = mx + c, of a straight line.
- Form linear equations given the gradient (m) and the y-intercept (c).
- Graph linear equations using the gradient and y-intercept.
- Inspect a straight-line graph and determine the gradient and -intercept and hence find the equation of the line.
- Recognise and describe linear relationships in real-life contexts.
- Recognise that lines are perpendicular if the product of their gradients is -1.
- Find the equation of a straight line that is parallel or perpendicular to a given line.

Outcomes Assessed: MA5-FIN-C-02, MA5-TRG-P-01, MA5-DAT-C-02, MA5-LIN-C-02, MAO-WM-01

Instructions:

- The examination will be completed in your usual Maths classroom.
- Bring your writing equipment and a ruler.
- NESA approved calculators are allowed.
- Answer all questions in the space provided.
- Full marks will only be given for correct answers, with working.
- A Stage 5 Reference Sheet will be provided with your test paper.

Time Allowed:

50 minutes (no reading time)

Please review the College policy on plagiarism located in the Assessment Booklet.

Absence from School the day before the assessment or on the day of the assessment without prior approval will require you to submit an Illness Misadventure form to Mrs Castor, the Director of Student Learning, for special consideration.

AI Traffic Light indicator for this task.

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AI use is NOT acceptable