

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

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

### Description of the Task: <u>Task 3 – CLASS TEST</u>

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

Total for Task 1 – 40 marks

In CORE (completed by 10MAT07 and 10MAT14), you will be assessed on how well you understand the following topics:

## Topic 6 – Data Analysis A and B

- Determine the 5-number summary for sets of numerical data
- Draw a box and whisker plot from a 5 point summary and vice-versa.
- Find the IQR from a set of data and/or from a box and whisker plot
- Compare 2 box and whisker plots.
- Interpret scatter plots of bivariate data.
- Use a scatter plot to comment on the association between 2 variables and apply terminology about form (linear), strength (strong, moderate or weak) and direction (positive or negative)
- Create a line of best fit by eye on a scatter plot.
- Identify and describe the independent variable and dependent variable
- Make predictions using a line of best fit between (interpolation) and beyond (extrapolation) known data values.

#### Topic 7 – Financial A and B

- Solve problems involving wages given an hourly rate of pay including penalty rates for overtime, weekends and public holidays.
- Calculate earnings from non-wage sources exploring commission, piece work and royalties.
- Calculate weekly, fortnightly, monthly and yearly earnings.
- Calculate leave loading by finding a percentage of eligible normal pay.
- Use the Compound formula to solve problems.
- Compare simple interest with compound interest in practical situations.
- Use the Depreciation formula to solve problems.

#### Topic 8 – Linear Relationships B

- Graphing straight lines using a table of values
- 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.

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.

**RED** 

AI use is NOT acceptable