YEAR 12 General Mathematics 2

Trial HSC Examination 2018

Due Date: Monday 2nd July 2018
9:20-11:55 Picton Hall

Assessment Name: Trial HSC Exam

Mark: x/100  
Weighting: 40 %

SYLLABUS OUTCOMES TO BE ASSESSED:

MG2H-1 Uses mathematics and statistics to evaluate and construct arguments in a range of familiar and unfamiliar contexts

MG2H-2 Analyses representations of data in order to make inferences, predictions and conclusions

MG2H-3 Makes predictions about situations based on mathematical models, including those involving cubic, hyperbolic or exponential functions

MG2H-4 Analyses two-dimensional and three-dimensional models to solve practical problems, including those involving spheres and non-right-angled triangles

MG2H-5 Interprets the results of measurements and calculations and makes judgements about reasonableness, including the degree of accuracy of measurements and calculations and the conversion to appropriate units

MG2H-6 Makes informed decisions about financial situations, including annuities and loan repayments

MG2H-7 Answers questions requiring statistical processes, including the use of the normal distribution, and the correlation of bivariate data

MG2H-8 Solves problems involving counting techniques, multistage events and expectation

MG2H-9 Chooses and uses appropriate technology to locate and organise information from a range of contexts

MG2H-10 Uses mathematical argument and reasoning to evaluate conclusions drawn from other sources, communicating a position clearly to others, and justifies a response

Note: As up to 30% of the assessment mark submitted to the Board of Studies may be based on the Preliminary Mathematics General course. Any preliminary outcomes can be assessed.


DIRECTIVES TO BE ASSESSED:

Analyse: To identify causes, key factors, relationships and possible results.

Answer: To provide a written reply or response to a question.

Choose: To select items or answer from a collection of values.

Construct: To draw a shape, line or angle accurately using a compass, ruler or geometrical instruments.

Evaluate: To make a judgement based on criteria; determine the value of.

Interpret: To draw meaning from a mathematical situation.

Justify: To provide evidence to support your solution.

Makes: To produce; cause to exist or happen; bring about

Predict: To make an educated guess about future events.

Reasoning: To use logical thinking to make sense of a situation or idea.

Solve: To find the answer to or explanation for effectively dealing with a problem.

Use: To manipulate something for a particular purpose to solve mathematical problems.
TASK DESCRIPTION:
You will complete a two-and-a-half-hour examination, with a five minutes reading time, covering all coursework studied in the General 2 Mathematics HSC and General Mathematics Preliminary courses listed below. Note Preliminary outcomes can be tested as a part of this exam. The exam will involve 25 multiple choice questions and 5 extended response questions.

A board approved formulae sheet will be provided with your exam paper.

Section 1 - 25 multiple choice questions are worth 25 marks in total. (1 mark each)
Section 2 – 5 extended response questions are worth 75 marks in total. (15 Marks each)

The topics assessed are:

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<th>HSC Course</th>
<th>Preliminary Course up to 30% of the assessment mark</th>
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<td>AM3 Further algebraic skills and techniques</td>
<td>AM1 Algebraic manipulation</td>
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<td>AM4 Modelling linear relationships</td>
<td>AM2 Interpreting linear relationships</td>
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<td>AM5 Modelling non-linear relationships</td>
<td>FM1 Earning and managing money</td>
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<td>DS4 Interpreting sets of data</td>
<td>FM2 Investing Money</td>
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<td>DS5 The normal distribution</td>
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<td>DS6 Sampling and populations</td>
<td>DS1 Statistics and society, data collection and sampling</td>
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<td>FM4 Credit and borrowing</td>
<td>DS2 Displaying and interpreting single data sets</td>
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<td>FM5 Annuities and loan repayments</td>
<td>DS3 Summary statistics</td>
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<td>MM4 Further applications of area and volume</td>
<td>MM1 Units of measurement and applications</td>
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<td>MM5 Applications of trigonometry</td>
<td>MM2 Applications of perimeter, area and volume</td>
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<td>FSRe1 Water availability and usage</td>
<td>MM3 Similarity of two-dimensional figures, right-angled triangles</td>
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<td>FSRe2 Dams, land and catchment areas</td>
<td>PB1 Relative frequency and probability</td>
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<td>FSRe3 Energy and sustainability</td>
<td>FSCo1 Mobile phone plans</td>
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Recommended equipment:
- Board approved scientific calculator
- Pens, ruler, pencils

ASSESSMENT CRITERIA – STUDENT CHECKLIST:
Have you:
- Revised the following topics by completing Exercises, Chapter Reviews, Cumulative Chapter Reviews and ensuring you have referenced syllabus documents:
  - Y12 (HSC textbook)
  - Y11 (Preliminary textbook)
- Attended Maths help on Fridays if needed
- Created your own topic summaries
- Caught up incomplete or missed work
- Completed all set homework, including past HSC questions
- Utilised online revision activities
- Completed generated HSC Online multiple choice questions on the Board of studies website.


Check your assessment booklet for the PHS Assessment Policy