



Mathematics A
Senior Syllabus 2008
Work Program (Draft)

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RATIONALE

- Mathematics A studies Managing Money, Elements of Applied Geometry, Linking Two and Three dimensions, Data Collection and Presentation, Exploring and Understanding Data, Navigation and Networks..

The subject develops skills in:

“Knowledge and Procedures”, “Modelling and Problem-Solving”, “Communication and Justification”.

- Mathematics A develops the following key competencies within mathematical contexts:
Collecting, analysing, organising information; Communicating ideas and information;
Planning and organising activities; Working with others; Using mathematical ideas and techniques;
Solving problems; Using technology.
- Mathematics A aims to provide the opportunity for students to participate more fully in lifelong learning.
It is recommended for students pursuing further study where Mathematics A is useful or a required pre-requisite.
- Mathematics A at Aviation High will incorporate aviation/aerospace applications in order to:
 - Increase exposure to and familiarity with a wide variety of aviation/aerospace settings;
 - Generate interest in aviation/aerospace and satellite industries for future employment;
 - Integrate with the mathematical skill requirements of
 - i)Aviation High’s Aeroskills and Aerospace subjects;
 - ii)Aviation Mathematics modules within Aviation Australia courses;
 - iii)Aviation/aerospace related subjects at university or TAFE level, including engineering courses;
 - Support the mathematical skill needs of aerospace-related work placements and apprenticeships;
 - Respond to the requests and advice from aviation/aerospace industry partners.
 - Achieve improved mathematics results through motivation that results from high-interest applications.

COURSE ORGANISATION OVERVIEW:

TIME ALLOCATION: 55 hours per semester; 220 hours over 2 years. Topic hours as per syllabus for core and elective units.

SEQUENCING: Sequencing should include--A spiralling and integrated approach;

- Relevant prerequisite material coverage;
- Provision of mathematics to meet student needs:
 - co-development of Year 11 Mathematics A and B,
- Linkage of subject matter across topics;
- Physical resources consideration;
- Maintenance of quantitative concepts and skills (QCS).

TECHNOLOGY: Technology should include--Regular and frequent use without complete dependence;

- General purpose computer software such as spreadsheets;
- Specialist mathematical graphing/geometry software;
- Calculator technologies.

COURSE SUMMARY: (Time in hours)

TOPIC	SEM 1	SEM 2	SEM 3	SEM 4	TOTAL
Managing Money I	12	13			25
Elements of Applied Geometry	20	5			25
Linking Two and Three Dimensions	10	15			25
Data Collection and Presentation	13	12			25
Managing Money II			15	15	30
Exploring and Understanding Data			15	15	30
Navigation		10	10	10	30
Networks			15	15	30
TIME ALLOCATION	55	55	55	55	220

ASSESSMENT:

ASSESSMENT PLAN: The assessment plan will--

- Cover all syllabus topics, subject matter and general objectives (KAP, MAPS, CAJ) as continuous assessment in appropriate sequence and balance, avoiding over-assessment;
- Detail a variety of assessment categories to ensure validity and reliability:
 - Supervised Tests including 'Short items', 'Practical exercises', 'Stimulus response', 'Paragraph response';
 - Extended Modelling and Problem-Solving Tasks (at least 1 per year); Reports (at least 1 per year);
- Use a variety of implementation conditions for assessment to ensure validity and reliability, with conditions and criteria assessed appropriate to the actual instruments supplied at monitoring and verification;
- Prescribe adequate assessment for each of the three criteria during Semester 4 prior to verification and assessment instruments for completion after verification;
- Allow for assessment items with unique identifiers to be constructed to collect evidence reflecting syllabus standards and exit criteria.

STUDENT PROFILE AND FOLIO: The assessment package (Profile + Folio) should--

- Correspond to the assessment plan with each instrument identified and the criteria indicated in correct sequence, including assessment after verification;
- Record:
 - Data from each assessment instrument for feedback purposes;
 - Standards awarded for each criterion (KAP, MAPS, CAJ) and proposed levels of achievement based on the whole package rather than the sum of its parts, at Reporting/Monitoring/Verification/Exit;
- Illustrate achievement in all three general objectives (KAP, MAPS, CAJ), with the emphasis on each criterion varying from instrument to instrument;
- Be 'Formative' for Year 11 and 'Summative' for Year 12 due to the spiralling and integrated course structure;
- Inform and validate judgments about standards by matching student responses to the syllabus/exit criteria;
- Allow for 'Fullest and Latest' information and "Selective Updating" to be obtained due to the spiralling and integrated approach, not by an arbitrary weighting of semesters, but by matching to syllabus standards/exit criteria.
- Provide evidence to make decisions regarding interim and exit levels of achievement which are consistent with the criteria and standards of the syllabus, especially for threshold cases.

COURSE ORGANISATION SEMESTER 1					
SEM	UNIT: SYLLABUS TOPIC	TIME (55h)	SUBJECT MATTER	ASSESSMENT ITEM	TEXT
SEM 1A	Unit 1: Elements of applied geometry (SLEs 1-2) Quantitative concepts and skills	10	<ul style="list-style-type: none"> • Applications of trigonometry using sine, cosine and tangent ratios • Applications of Pythagoras' Theorem • Simple algebraic manipulation of relevant formulae for this topic • Metric measurement including measurement of mass, length, area and volume in practical contexts • Calculation and estimation with and without instruments • Basic algebraic manipulations 	A TEST	<i>New QMaths 11A</i> Chapter 1
SEM 1A	Unit 2: Data collection and presentation (SLEs 1-6,9) Quantitative concepts and skills	13	<ul style="list-style-type: none"> • Types of data and variables (continuous and discrete) • Practical aspects of collecting and handling data for observation, experimentation or survey, including possible data problems • Rates, percentages, ratio and proportion 	A TEST	<i>New QMaths 11A</i> Chapter 2
SEM 1A	Unit 3: Elements of applied geometry I (SLEs 3-11;17) Quantitative concepts and skills	5	<ul style="list-style-type: none"> • Area, volume and capacity in life-related situations • Simple algebraic manipulation of relevant formulae for this topic • Metric measurement including measurement of mass, length, area and volume in practical contexts • Calculation and estimation with and without instruments • Basic algebraic manipulations 	A TEST	<i>New QMaths 11A</i> Chapter 3
SEM 1B	Unit 4: Linking two and three dimensions (SLEs 1-2;4,11-14) Quantitative concepts and skills	10	<ul style="list-style-type: none"> • Interpretation of scale drawings and plans • Drawing simple scale drawings and plans • Metric measurement including measurement of mass, length, area and volume in practical contexts • Calculation and estimation with and without instruments • Basic algebraic manipulations 	B EXT. MAPS C TEST	<i>New QMaths 11A</i> Chapter 4
SEM 1B	Unit 5: Managing Money I (SLEs 1-2;4-5,14) Quantitative concepts and skills	12	<ul style="list-style-type: none"> • Earnings, including salary, wages, overtime, commission, piece rate, and means-tested income; an industrial award should be used where appropriate • Taxation, including taxable income, gross income, net income, goods and services tax (GST), deductions, rebates, and levies • Calculation and estimation with and without instruments • Rates, percentages, ratio and proportion 	C TEST	<i>New QMaths 11A</i> Chapter 5
SEM 1B	Unit 6: Elements of applied geometry II (SLEs 12-16,18) Quantitative concepts and skills	5	<ul style="list-style-type: none"> • Latitude, longitude and measurement of time and distance • Simple algebraic manipulation of relevant formulae for this topic • Metric measurement including measurement of mass, length, area and volume in practical contexts • Calculation and estimation with and without instruments 	C TEST	<i>New QMaths 11A</i> Chapter 6

COURSE ORGANISATION SEMESTER 2					
SEM	UNIT: SYLLABUS TOPIC	TIME (55h)	SUBJECT MATTER	ASSESSMENT ITEM	TEXT
SEM 2A	Unit 7: Data collection and presentation (SLEs 4,8,10-12) Quantitative concepts and skills	6	<ul style="list-style-type: none"> • Types of data and variables (continuous and discrete) • Descriptions of key features of data with reference to suitable elections of graphical and tabular displays • Data displays including scatterplots, simple and compound stem & leaf plots and box & whisker plots • Rates, percentages, ratio and proportion • Plotting points using Cartesian coordinates 	D TEST	New QMaths 11A Chapter 7
SEM 2A	Unit 8: Managing money I (SLEs 3,6-7,10-13,15-16) Quantitative concepts and skills	13	<ul style="list-style-type: none"> • Budgeting, including the preparation of a personal budget plan • Spending, including discount and foreign exchange • Business applications, including profit, loss, mark-up • Calculation and estimation with and without instruments • Rates, percentages, ratio and proportion 	D TEST	New Qmaths 11A Chapter 10
SEM 2A	Unit 9: Data collection and presentation (SLEs 4,6-8,10-12) Quantitative concepts and skills	6	<ul style="list-style-type: none"> • What a sample represents, how it relates to populations and whether it is appropriate • Descriptions of key features of data with reference to suitable selections of graphical and tabular displays • Data displays including scatterplots, simple and compound stem & leaf plots and box & whisker plots • Sample means and medians as measures of central tendency • Sample standard deviations and interquartile range as descriptors of spread • Calculation and estimation with and without instruments • Basic algebraic manipulations • Plotting points using Cartesian coordinates 	D EXT. MAPS E TEST	New Qmaths 11A Chapter 11
SEM 2B	Unit 10: Maps and compasses – Navigation (SLEs 2,9-11) Quantitative concepts and skills	10	<ul style="list-style-type: none"> • Compass bearings and reverse bearings • Magnetic variation • Plot and determine compass bearings and reverse bearings • Use magnetic variation to explain the link between True bearings and Magnetic bearings • Metric measurement including measurement of mass, length, area and volume in practical contexts • Calculation and estimation with and without instruments 	F TEST	New Qmaths 11A Chapter 8
SEM 2B	Unit 11: Elements of applied geometry (SLEs 3,5) Linking two and three dimensions (SLEs 1,3,5-10,15-19) Quantitative concepts and skills	5 15	<ul style="list-style-type: none"> • Applications of Pythagoras' Theorem • Area, volume and capacity in life-related situations • Interpretation of scale drawings and plans • The geometry of bracing for rigidity • Practical tests for squareness, plumbness and levels • Estimation of quantities and costs in a variety of construction areas • Metric measurement including measurement of mass, length, area and volume in practical contexts • Calculation and estimation with and without instruments 	F TEST	New Qmaths 11A Chapter 12

COURSE ORGANISATION SEMESTER 3					
SEM	UNIT: SYLLABUS TOPIC	TIME (55h)	SUBJECT MATTER	ASSESSMENT ITEM	TEXT
SEM 3A	Unit 12: Maps and compasses - Navigation (SLEs 1-3,5-7,9,11-14) Quantitative concepts and skills	10	<ul style="list-style-type: none"> • Compass bearings and reverse • Magnetic variation • Nautical miles and knots • Use of maps and charts, compasses, dividers and parallel rulers or their equivalent • Plot and determine compass bearings and reverse bearings • Use magnetic variation to explain the link between True bearings and Magnetic bearings • Calculate speed and distances: with reference to latitude; using nautical miles and knots • Plot courses and determine location by using: maps, charts, compasses, dividers and parallel rulers or their equivalent; a variety of methods of fixing position which may include bearing fix, dead reckoning, running fix, GPS • Calculation and estimation with and without instruments 	G TEST	<i>New QMaths 12A Chapter 1</i>
SEM 3A	Unit 13: Managing money II (SLEs 1-3,6-7,11,15-16,18-19) Quantitative concepts and skills	8	<ul style="list-style-type: none"> • Simple interest, and compound interest for various compounding periods; effective and nominal rates • Simple algebraic manipulation of financial formulae • Calculation and estimation with and without instruments • Rates, percentages, ratio and proportion • Simple interest • Basic algebraic manipulations 	G TEST	<i>New QMaths 12A Chapter 3</i>
SEM 3A	Unit 14: Exploring and understanding data (SLEs 1-6) Quantitative concepts and skills	7	<ul style="list-style-type: none"> • Use of summary statistics to draw and analyse conclusions, represent data and make inferences • Interpretation and use of sample statistics (including sample means and medians) as estimates of parameters to predict underlying population values or of values in a model • Calculation and estimation with and without instruments 	G TEST	<i>New QMaths 12A Chapter 4</i>
SEM 3B	Unit 15: Managing money II (SLEs 6-10) Quantitative concepts and skills	7	<ul style="list-style-type: none"> • Inflation, appreciation and depreciation • Notion of present value of a lump sum payment • Calculation and estimation with and without instruments • Basic algebraic manipulations • Plotting points using Cartesian coordinates 	H EXT. MAPS I TEST	<i>New QMaths 12A Chapter 5</i>
SEM 3B	Unit 16: Exploring and understanding data (SLEs 6-7,10-11) Quantitative concepts and skills	8	<ul style="list-style-type: none"> • Interpretation and use of relative frequencies to estimate probabilities of individual values for discrete variables (including categories) and of intervals for continuous variables • Interpretation and use of probability as a measure of chance in a range of practical and theoretical situations • Misuse of probabilities, including misinterpretation of row and column percentages in contingency tables • Calculation and estimation with and without instruments • Rates, percentages, ratio and proportion • Tree diagrams as a tool for defining sample spaces and estimating probabilities 	I TEST	<i>New QMaths 12A Chapter 6</i>
SEM 3B	Unit 17: Operations research – Networks and queuing (SLEs 1-3,5) Quantitative concepts and skills	15	<ul style="list-style-type: none"> • Identify and use network terminology including node, branch, path and tree • Shortest path through a network • Minimum spanning tree for a network • Choose and use shortest path or minimum spanning tree as applicable to the context • Calculation and estimation with and without instruments 	I TEST	<i>New QMaths 12A Chapter 8</i>

COURSE ORGANISATION SEMESTER 4					
SEM	UNIT: SYLLABUS TOPIC	TIME (55h)	SUBJECT MATTER	ASSESSMENT ITEM	TEXT
SEM 4A	Unit 18: Networks and Queuing II (SLEs 1,4,6-9) Quantitative concepts and skills	15	<ul style="list-style-type: none"> Identify and reflect upon the effect of critical steps in project networks Identify and reflect upon the impact of slack time in a project network Investigate single- and multiple-server queue situations with constant arrival and service times using a variety of representations Investigate the effects on a queuing system of random arrival and service times Calculation and estimation with and without instruments 	J EXT. MAPS K TEST	<i>New QMaths 12A Chapter 16</i>
SEM 4A	Unit 19: Maps and compasses - Navigation (SLEs 3-4,6-8,11-15) Quantitative concepts and skills	10	<ul style="list-style-type: none"> Use of maps and charts, compasses, dividers and parallel rulers or their equivalent Methods of fixing position which may include bearing fix, dead reckoning, running fix, GPS Use magnetic variation to explain the link between True bearings and Magnetic bearings Calculate speed and distances: with reference to latitude; using nautical miles and knots Plot courses and determine location by: using maps, charts, compasses, dividers and parallel rulers or their equivalent; a variety of methods of fixing position which may include bearing fix, dead reckoning, running fix, GPS Calculation and estimation with and without instruments 	J EXT. MAPS K TEST	<i>New QMaths 12A Chapter 10</i>
SEM 4B	Unit 20: Exploring and Understanding of data (SLEs 1-5,8,13-14) Quantitative concepts and skills	15	<ul style="list-style-type: none"> Calculate, tabulate and graph probability distributions for discrete variables Use of areas in histograms to estimate probabilities Calculation of expected values for discrete variables using probability distributions Identify situations in which a discrete variable is uniformly distributed, for example random numbers Identify binomial situations, calculate expected values and probabilities for these situations using tables or calculators Compare relative frequencies with theoretical probabilities for a range of variables Apply basic probability rules of complements and unions to a range of life related situations. Determine odds as an application of probabilities Calculation and estimation with and without instruments Rates, percentages, ratio and proportion Tree diagrams as a tool for defining sample spaces and estimating probabilities 	L TEST	<i>New QMaths 12A Chapter 9</i>
SEM 4B	Unit 21: Managing Money II (SLEs 1-6,12,15,18) Quantitative concepts and skills	15	<ul style="list-style-type: none"> Simple interest, and compound interest for various compounding periods; effective and nominal rates Consumer credit including personal loans, credit cards, debit cards, housing loans (including fees and charges) Simple algebraic manipulation of financial formulae Calculation and estimation with and without instruments Rates, percentages, ratio and proportion Simple interest Basic algebraic manipulations 	L TEST	<i>New QMaths 11A Chapter 12</i>

SAMPLE UNIT OF WORK UNIT 9: Data Collection and Presentation --- SYLLABUS TOPIC: Data Collection and Presentation (6h)

SUBJECT MATTER	CONTENT	LEARNING EXPERIENCES including Technology	RESOURCES
What a sample represents, how it relates to populations and whether it is appropriate	Definition of a sample, sample space, and population Discuss data collection techniques	SLE8: Examine examples of various graph types and genres SLE7: Examine data collection techniques such as polling to discuss sample representation of Population and extrapolation	Textbook: <i>New QMaths 11A</i> Chapter 11 Print Resources: <i>Quest 11A</i> Aviation Library Technology: -Scientific Calculators -Maths Helper Plus -Excel -See Aviation Aviation: - Industry Partners -Models/UAV -Wind Tunnel -Roland Equipment -Print Resources -Radio Room
Descriptions of key features of data with reference to suitable selections of graphical and tabular displays	Compile and manipulate data in tables Select appropriate display techniques Plot and interpret appropriate graphs	SLE12: Examine and contract various techniques for data display SLE12: Interpret data displays including critical examination of misleading graphs	
Data displays including scatterplots, simple and compound stem & leaf plots and box & whisker plots	Compile and describe scatterplots and data correlation Draw and interpret stem and leaf plots and box and whisker plots Compare data using back to back stem and leaf or box and whisker plots	SLE4: Use a spreadsheet or Maths Helper to compile and display data including graphical plots.	
Sample means and medians as measures of central tendency	Recall the techniques for calculating mean and median Examine data sets that are 'normal' and those with outliers or irregular data Determine mean, median and mode from data compiled in tables	SLE10: Compare different measures and their validity in various situations	
Sample standard deviations and interquartile range as descriptors of spread	Discuss the concept of data spread as opposed to central tendency Differentiate between the uses of central tendency and spread to interpret data Calculate SD & IQR for individual and tabulated data	SLE11: Examine and interpret the relationship between two data items	
QCS Calculation and estimation with and without instruments Basic algebraic manipulations Plotting points using Cartesian coordinates	<u>Recall and use:</u> Numerical calculation techniques Equation substitution techniques Equation manipulation techniques Graphing coordinates for scatterplots Plotting and graphing points on a line		

RELATED ASSESSMENT

ITEM D: SUPERVISED TEST	ITEM E: EXTENDED MAPS TASK AND REPORT
POSSIBLE TECHNIQUES: Short items, Practical exercises, Response to stimulus TECHNOLOGY: Scientific calculator TIME: 2 hours (or 2x1 hour) CONDITIONS: Supervised exam with no source materials	POSSIBLE THEME: Test fly paper helicopters and record flight time data UNIT LINK: Data Analysis TECHNOLOGY: Graphing software, Scientific Calculator TIME: 3 weeks CONDITIONS: Some supervised classwork; Individual Report

SAMPLE UNIT OF WORK UNIT 10: MAPS AND NAVIGATION---BEARINGS AND PLOTTING POSITIONS
SYLLABUS TOPICS: MAPS AND NAVIGATION (5h);

SUBJECT MATTER	CONTENT	LEARNING EXPERIENCES	RESOURCES
Compass bearings and reverse bearings	Compass layout and compass rose Relationship between compass bearings and reverse bearings Relationship between nms and kms	SLE11: Investigate situations where a reverse bearing is crucial, such as a plane crash or lost hikers.	Textbook: <i>New QMaths 12B</i> Chapter 8 Print Resources: <i>Quest 11A</i> Aviation Library Technology: -Scientific Calculators -Maths Helper Plus -Excel -Maps-real and imaginary -Protractors, rolling rulers, dividers, etc -See Aviation -Measurement Equipment such as clinometers Aviation: - Industry Partners -Print Resources -Wind tunnel
Plot and determine compass bearings and reverse bearings	Orientating a map Describing a position with longitude and latitude Using <i>Northings</i> and <i>Eastings</i> to plot map courses accurately Using reverse bearings to backtrack	SLE10: Plotting courses with multiple legs SLE11: Using land features to reinforce course plots is dependant on the navigational context	
Magnetic variation	Explain the reasons behind the variation Calculate difference in variation Learn and apply the rule for calculating variations	SLE2: Use magnetic variations to determine map and compass bearings SLE9: Discuss the cumulative effects of variation over time through examination of maps that are over a decade old	
Use magnetic variation to explain the link between True bearings and Magnetic bearings	Use the variation difference to accurately describe courses for map and magnetic situations. Discuss the importance of variation in position fixing	SLE2&10: Plot courses with multiple legs using magnetic variation using dead reckoning SLE9: Consider the effects of multiple variation omissions on a standard course.	
QCS: Calculation and estimation Metric measurement including measurement of mass, length, area and volume in practical contexts Calculation and estimation with and without instruments	<u>Recall and use:</u> Numerical calculation techniques Length measurement in SI Estimation of angles and bearings based on scale drawings Determining Longitude and Latitude from a map		

RELATED ASSESSMENT

<p>ITEM D: SUPERVISED TEST</p> <p>POSSIBLE TECHNIQUES: Short items, Practical exercises, Response to stimulus TECHNOLOGY: Scientific Calculator TIME: 2 hours (or 2x1 hour) CONDITIONS: Supervised exam with no source materials</p>
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INTENDED ASSESSMENT PLAN:

SEM	ITEM	SUBJECT MATTER	GENERAL OBJECTIVES	CATEGORY: DESCRIPTION AND CONDITIONS
1	A	UNITS 1-3	KAP MAPS CAJ	SUPERVISED TEST POSSIBLE TECHNIQUES: Short items, Practical exercises, Stimulus response TECHNOLOGY: Scientific calculator TIME: ~2 hours (or 2x1 hr) CONDITIONS: Supervised test with no source materials
1	B	UNIT 4	KAP MAPS CAJ	EXTENDED MAPS TASK POSSIBLE THEME: Landscaping TECHNOLOGY: Excel and Maths Helper Plus TIME: 3 weeks CONDITIONS: Lessons on Excel; Individual work, some as supervised classwork;
1	C	UNITS 4-6	KAP MAPS CAJ	SUPERVISED TEST POSSIBLE TECHNIQUES: Short items, Practical exercises, Stimulus response TECHNOLOGY: Scientific calculator TIME: ~2 hours block exam CONDITIONS: Supervised test with no source materials
2	D	UNIT 9	KAP MAPS CAJ	EXTENDED MAPS TASK AND REPORT POSSIBLE THEME: PART A-Data collected on flight time statistics PART B-Report on flight test data using statistics TECHNOLOGY: Excel and Maths Helper Plus TIME: 3 weeks CONDITIONS: Lessons on Excel and Maths Helper; Small group data collection; Individual work, some as supervised classwork
2	E	UNITS 7-9	KAP MAPS CAJ	SUPERVISED TEST POSSIBLE TECHNIQUES: Short items, Practical exercises, Stimulus response TECHNOLOGY: Scientific calculator TIME: ~2 hours (or 2x1 hr) CONDITIONS: Supervised test with no source materials
2	F	UNITS 10-11	KAP MAPS CAJ	SUPERVISED TEST POSSIBLE TECHNIQUES: Short items, Practical exercises, Stimulus response TECHNOLOGY: Scientific calculator TIME: ~2 hours block exam CONDITIONS: Supervised test with no source materials
MONITORING				
3	G	UNITS 12-14	KAP MAPS CAJ	SUPERVISED TEST POSSIBLE TECHNIQUES: Short items, Practical exercises, Stimulus response TECHNOLOGY: Scientific calculator TIME: ~2 hours (or 2x1 hr) CONDITIONS: Supervised exam with no source materials
3	H	UNIT 15	KAP MAPS CAJ	EXTENDED MAPS TASK POSSIBLE THEME: Superannuation TECHNOLOGY: Excel TIME: 3 weeks CONDITIONS: individual; data simulation; Individual work, with some supervised classwork;
3	I	UNITS 15-17	KAP MAPS CAJ	SUPERVISED TEST POSSIBLE TECHNIQUES: Short items, Practical exercises, Stimulus response TECHNOLOGY: Scientific calculator TIME: ~2 hours block exam CONDITIONS: Supervised exam with no source materials
4	J	UNITS 18-19	KAP MAPS CAJ	EXTENDED MAPS TASK POSSIBLE THEME: Navigation and networks TECHNOLOGY: Navigation Equipment, Excel TIME: 3 weeks CONDITIONS: Individual work, with some supervised classwork;
4	K	UNITS 18-19	KAP MAPS CAJ	SUPERVISED TEST POSSIBLE TECHNIQUES: Short items, Practical exercises, Stimulus response TECHNOLOGY: Scientific calculator TIME: ~2 hours (or 2x1 hr) CONDITIONS: Supervised exam with no source materials;
VERIFICATION				
4	L	UNITS 20-21	KAP MAPS CAJ	SUPERVISED TEST POSSIBLE TECHNIQUES: Short items, Practical exercises, Stimulus response TECHNOLOGY: Scientific calculator TIME: ~2 hours (or 2x1 hr) CONDITIONS: Supervised exam with no source materials;
EXIT				



MATHEMATICS A STUDENT PROFILE

STUDENT NAME: _____

TEACHER/S: _____ **200** - **201**

Assessment Instruments (Units)		Mathematics A Assessment Criteria			Level of Achievement
		Criterion K & P	Standard M&P	Criterion C & J	
Semester 1 Formative	A Test: Units 1-3	B	C	C	
	B Ext.MAPS/Report: Unit 4	B	C	B	
	C Test: Units 4-6	C	C	C	
	Semester 1 Summary	B	C	C	C
Semester 2 Formative	D Ext.MAPS: Unit 9	A	C	A	
	E Test: Units 7-9	C	C	B	
	F Test: Units 10-11	A	C	C	
	Semester 2 Summary	B	C	B	B
Monitoring Semesters 1&2		B	C	B	HA
Semester 3 Summative	G Test: Units 12-14	C	C	C	
	H Ext.MAPS/Report: Unit 15	A	B	A	
	I Test: 15-17	C	D	C	
	Semester 3 Summary	C	C	C	C
Semester 4 Summative	J Ext.MAPS: Units 18-19	D	D	D	
	K Test: Units 18-19	C	C	C	
	Verification Semesters 3&4	C	C	C	SA
	L Test: Units 20-21	C	C	C	
	Semester 4 Summary	D	C	C	C
Exit Semesters 3&4		C	C	C	SA
SAI					###

