

Year 9 (2021)



# MATHEMATICS

## Term 1 Examination Task Notification

Date	Week 8B	Thursday, 18 <sup>th</sup> March 2021						
Weighting	20% of Year 9 Mathematics Assessment							
	This assessment is compulsory for:							
Classes Assessed	9MATR 9MATO 9MATY 9MATG	Mr Smithard Mrs Keir Mr Chakari Mr Bokat	Period 3 Period 3 Period 3 Period 3	9MATB 9MATI 9MATV 9MATP	Ms Pham Mr Bokat Mr Smithard Ms Ibrahim	Period 1 Period 1 Period 1 Period 1		
Examination Details	Read the follo Duration: Format: Venue:	owing details o 50 minutes <b>CALCULATO</b> I Classrooms	arefully a	nd write	them into you	r diary.		
Equipment Required	<ul> <li>The following equipment is required for this assessment task:</li> <li>Blue and/or black pens</li> <li>Lead Pencils</li> <li>Approved Calculator</li> <li>Ruler</li> <li>Note:</li> <li>No borrowing of equipment will be permitted.</li> <li>A formula sheet (attached) will be provided for this examination.</li> </ul>							
Marking Criteria	<ul> <li>All quest</li> <li>All quest</li> <li>To obtain necessar</li> <li>Some material</li> <li>Trivial at an official</li> </ul>	tions should be tions are worth n full marks, an ty working mus arks may be av tempts will be al warning lett	e attempte n 1 mark u nswers mu st be show warded fo e counted er being is	ed. Inless oth Ust be conv Vn. In partially as a non- Ssued.	erwise indicat mpletely corre correct answ attempt and r	ted. ect and all rers. nay result in		
Absentee Procedures	If you are absent on the day of this examination, upon your return to school you must present a Doctor's Certificate to your Class Teacher or the Head Teacher explaining your absence, otherwise a mark of zero may be awarded. You will be required to sit for your examination on the first day you return to school.							

### **Examination Paper**

The following table lists all the Stage 4 and Stage 5 outcomes, knowledge and numeracy skills that will be assessed in this assessment task.

Strands	Assessment Outcomes						
	Topic: Integers, Decimals, Fractions, Ratios and Rates						
Number and Algebra	MA4-4NA Compares, orders and calculates with integers, applying a range of strategies to aid computation. MA4-5NA						
	Operates with fractions, decimals and percentages. MA4-7NA Operates with ratios and rates, and explores their graphical representation.						
	Topic: Financial Mathematics						
	<ul> <li>MA4-6NA</li> <li>Solves financial problems involving purchasing goods</li> <li>MA5.1-4NA</li> <li>Solves financial problems involving earning, spending and investing money.</li> <li>MA5.2-4NA (Stage 5.2 and 5.3 only)</li> <li>Solve financial problems involving compound interest</li> </ul>						
Working Mathematically	MA4-1WM Communicates and connects mathematical ideas using appropriate terminology, diagrams and symbols.						
	<ul> <li>MA4-2WM</li> <li>Applies appropriate mathematical techniques to solve problems.</li> <li>MA4-3WM</li> <li>Recognises and explains mathematical relationships using reasoning.</li> <li>MA5.1-3WM</li> <li>Provides reasoning to support conclusions that are appropriate to the context.</li> <li>MA5.2-2WM (Stage 5.2 and 5.3 only)</li> <li>Interprets mathematical or real-life situations, systematically applying appropriate strategies to solve problems.</li> </ul>						
Textbook Chapters	<ul> <li>Cambridge 9: NSW Gold – Chapters 1 &amp; 2</li> <li>Cambridge 9: 5.1 &amp; 5.2 – Chapters 1 &amp; 2</li> <li>Cambridge 9: 5.1, 5.2 &amp; 5.3 – Chapter 1</li> </ul>						

#### Year 9 Reference Sheet: Computation and Financial Mathematics



### Stage 5 Mathematics Grading Scale

The following table lists outcomes and sample performance descriptors that students can typically achieve to be awarded the respective grades outlined.

Year 9	ACHIEVEMENT								
TOPIC & OUTCOME	Limited Basic		Sound		High		Extensive		
	E2	D3	D4	C5	<b>C</b> 6	B7	B8	A9	A10
Computation with Integers, Fractions, Decimals and Percentages MA4-4NA Compares, orders and calculates with integers, applying a range of strategies to aid computation. MA4-5NA Operates with fractions, decimals and percentages.	Apply integers to simple problems involving money and temperature. Add and subtract integers using mental and written strategies. Multiply and divide integers using mental and written strategies. Rounds numbers in familiar contexts. Represent common percentages as fractions and decimals. Calculates percentages with 10% 25% or 50%	Convert between simple decimals, fractions and percentages and calculate percentages of quantities with digital technologies. Uses some prefixes. Can round to a given number of decimal places. Apply the order of operations to mentally evaluate expressions involving integers.	Identifies significant figures (SF) Uses large and small prefixes. Express one quantity as a percentage of another. Increase or decrease a quantity by a given percentage. Calculate percentages greater than 100%. Convert between any fraction, decimal or percentage.	Recognise equivalence when calculating percentage increase or decrease. e.g. x 1.05 = increase of 5%. Find the percentage increase or decrease of a quantity. Use the unitary method to solve simple problems. Apply appropriate strategies to solve real-life problems involving percentages.	Apply appropriate strategies to solve unfamiliar problems involving fractions, decimals and percentages. Use the unitary method to solve any problem involving fractions, decimals or percentages				
Rates and Ratios MA4-7NA Operates with ratios and rates, and explores their graphical representation.	Writes ratios. Simplifies simple ratios.	Simplifies simple rates. Finding simple equivalent ratios.	Simplifies ratios with fractions, decimals, different units.	Converts between units for rates.	Divides a quantity into a given ratio. Solve a variety of real-life problems involving ratios, e.g. scales on maps, mixes for fuels or concrete.	Use rates to compare quantities measured in different units.			

Financial Mathematics MA4-6NA Solves financial problems involving purchasing goods MA5.1-4NA Solves financial problems involving earning, spending and investing money. MA5.2-4NA (Stage 5.2 and 5.3 only) Solve financial problems involving compound interest	Solves simple financial mathematics problems involving earning money.	Solves simple financial mathematics problems involving earning and spending money and, given the formula, calculates simple interest.	Uses the given compound interest and depreciation formulas to solve simple problems.	Solves multi-step financial mathematics problems involving commission and overtime. Uses the compound interest and depreciation formulas to solve word problems (compounded annually only).	Solves multi-step problems involving holiday loading, tax tables. Solves for P, r, n in simple interest formula. Calculate best buys by comparing prices per unit. Apply strategies to calculate percentage discount, profit or loss.	Applies the compound interest formula to solve financial mathematics problems, including those involving depreciation. Solve complex best buys problems using various techniques and recognises that in practical situations there are considerations other than just the 'best buy'.	Solves financial mathematics problems using compound interest formula for various compounding periods. Compares and contrasts applying simple and/or compound interest over various time periods using numerical expressions.	Solves problems for r and t using the compound interest formula.	Compares and contrasts applying simple and/or compound interest over various time periods using generalised expressions.
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