

## MATHEMATICS - GRADE 12 - 2020

TOPIC	ASSESSMENT STANDARDS	PORTFOLIO ASSESSMENT TASKS
<b>PHASE 1 (5 November 2019 – 6 March 2020)</b>		
<b>Statistics</b>	Bivariate data and regression; correlation	<p>☞ <b>Task 1</b> Dec Controlled Test Dec 2019</p> <p>☞ <b>Task 2</b> Assignment: P2 Revision 3 – 7 Feb</p> <p>☞ <b>Task 3</b> Controlled Test 24 Feb – 6 March</p>
<b>Number patterns</b>	Arithmetic Series	
	Geometric Series	
	Infinite Geometric series; Sigma notation	
<b>Trigonometry</b>	Compound Angle formulae	
	Identities and Equations	
<b>Financial Mathematics</b>	Calculation of time period	
	Future value annuity formula	
	Present value annuity formula	
<b>PHASE 2 (9 March 2020 – 29 May 2020)</b>		
<b>Analytical Geometry</b>	Equation of a circle (any centre)	<p>☞ <b>Task 4</b> Investigation: Finance 14 – 17 April</p> <p>☞ <b>Task 5</b> June Exams 18 – 29 May</p>
	Equations of tangents to circles	
<b>Polynomials</b>	Remainder and Factor theorem	
<b>Calculus</b>	Calculus; limits and first principles	
	Rules for differentiation	
	Sketch graphs of cubic functions	
	Applications to problems – max / min; rates of change	
<b>Trigonometry</b>	Functions $y = \sin k(x + p) + q$ ; $y = \cos k(x + p) + q$ and $y = \tan k(x + p) + q$	
<b>PHASE 3 (01 June 2020 – 16 October 2020)</b>		
<b>Euclidean Geometry</b>	Proportional Intercept theorems	<p>☞ <b>Task 6</b> Controlled Test 27 – 31 July</p> <p>☞ <b>Task 7</b> Trials Exam 17 Aug – 4 Sept</p>
	Similar triangles	
	Proof of the theorem of Pythagoras	
<b>Trigonometry</b>	Solution of problems in 2 and 3 dimensions	
<b>Probability</b>	Dependent and Independent events	
	Venn Diagrams and other techniques	
	Fundamental counting principle	
<b>Functions</b>	Definition of a function	
	Inverses of functions	
	Logarithmic function	
<b>Consolidation</b>	Revision	