	IMMACULATE CONCEPTION HIGH SCHOOL DEPARTMENT OF MATHEMATICS **TERM 1 PLAN – Sept to Dec 2022**				
	NAME OF TEACHERS: Miss Abdullah, Ms. Pryce, Ms. Dudley, Mr. Ross, Mrs. York & Ms. Parker				
	GRADE: 11 **TERM 1**		**Weighting: Test – 60%** **Course work 40%**	**Description: 4 tests (minimum)** **3 Course work (1 class work & 2 quizzes)**	
	WEEK	**DATE**	**TOPICS**	**OBJECTIVE :** Students should be able to :	**ASS'T/ ACTIVITY SHEETS**
	1	SEPT 5-9		This week will be used to: 1. Sensitized students to what school term will look like Discussion is expected on ● Review of the previous year ● Assignment ● Grading ● Channel of communication ● Teaching and learning expectations and challenges ● Review solution to EOY Exam (Grade 10) 2. SBA discussion	**4 QUIZ** **Six weekly test (2)** Other Materials: Handouts, Powerpoint Videos Test
	4	Sept 12-23	**<u>AREA & VOLUME</u>** **<u>REVIEW: Area and circumference of circle, area of sector & segment (b) Area and Perimeter of plane shapes</u>**	Students should be able to: 1. Identify the arc, sector and segment of a circle, 2. Find the area of a sector, segment or parts thereof of a circle with the use of angles, 3. Find arc length, 4. Identify prisms, pyramids and spheres, 5. Calculate the surface area of a simple right prism, a pyramid, and a sphere, 6. Calculate the volume of a simple right prism, a pyramid and a sphere and, 7. Calculate the volume and surface area of composite	

				solids.	
	4	Sept 26-30	**<u>STATISTICS III</u>**	1. review of grade 8 statistics 2. review of grade 9 statistics 3. List measures of dispersions 4. Define quartiles, interquartile range and semi-interquartile range. 5. Use raw data to determine the quartiles, interquartile range and semi- interquartile range.	
	5	Oct 3-7		a) define cumulative frequency b) prepare a cumulative frequency table c) Draw a cumulative frequency curve (ogive) d) use cumulative frequency curve to determine i) quartiles ii) interquartile and semi-interquartile range and iii) other statistical data	
	6	Oct 10-14		• Define standard deviation • Explain the purpose of standard deviation • Use given situations when given the mean and standard deviation	
	7	Oct 31-Nov 4	**<u>FUNCTIONS & GRAPHS</u>**	• Review of functions done in grade 8 • Recognize and use the inverse function notation ie Given the function $f(x)$, *then inverse function* $\boldsymbol{f}-\mathbf{1}(\boldsymbol{x})$**.** • Find the inverse of a function • Evaluate inverse function at a given value of x Example $^{-1}(a)$, where $a \in \mathbb{R}$.	
	8	**Nov 7-11**		• Evaluate composite function at a given value of x • example $fg(a)$, where $a \in \mathbb{R}$.	

		Nov 14- Nov 18		● Read and interpret graphs of functions. ● Use graphs to determine the elements of the domain, which have a given image or vice versa. ● Use graphs to determine the interval of a domain for which the elements of the range may be positive or negative. ● Use graphs to determine the roots of the given function. ● Use graphs to determine the maximum or minimum values of the function over a given interval. ● 9. Use graphs to find the solution set of a quadratic and linear equations.	
	9-11	**Nov 21-Dec 2**	**<u>CIRCLE THEOREMS</u>**	1. Solve problems using the following theorems related to the properties of a circle: (a) the angle which an arc of a circle subtends at the centre of a circle is twice the angle it subtends at any point on the remaining part of the circumference. (b) The angle in a semicircle is a right angle. (c) Angles in the same segment of a circle and subtended by the same arc are equal. (d) The opposite angles of a cyclic quadrilateral are supplementary. (e) The exterior angle of a cyclic quadrilateral is equal to the interior opposite angle. (f) A tangent of a circle is perpendicular to the radius of that circle at the point of contact. (g) The lengths of two tangents from an external point to the point of contact on the circle are equal. (h) The angle between a tangent to a circle and a chord through the point of contact is equal to the angle in the alternate segment. The line joining the centre of a circle to the midpoint of a chord is perpendicular to the chord.	
	12	**Dec 12-16**	**<u>Similar Shapes &</u>**	Students should be able to: 1. List the properties of similar shapes. 1. Distinguish between similarity and congruency 2. Prove that given shapes are similar 3. Solve triangles using the concept of similar shapes	

		<u>Variation</u>	4. Calculate scale factor of similar shapes. Students should be able to: 1. Represent direct and inverse variations symbolically. 2. Perform calculations involving direct variation and inverse variation.	