

Curriculum	
Grade:	11 IP
Subject:	Mathematics

Topic	Description	Lesson	Lesson Code	Objectives
Precalculus	<p>→ How to solve a quadratic equation and sketch the graph of a quadratic function.</p> <p>→ How to identify the characteristics of equations and sketch their graphs.</p> <p>→ How to find and graph equations of lines, including parallel and perpendicular lines, using the concept of slope.</p> <p>→ How to evaluate and graph functions and their transformations.</p>	Quadratic Functions	P0.1	Complex Numbers
			P0.2	Solving quadratic equations by factoring, completing the square and the quadratic formula.
			P0.3	Quadratic functions and their graphs.
			P0.4	Quadratic Models.
		Graphs and Models	P1.1	Sketch the graph of an equation.
			P1.2	Find the intercepts of a graph.
			P1.3	Test a graph for symmetry with respect to an axis and the origin.
			P1.4	Find the points of intersection of two graphs.
		Linear Models and Rates of Change	P2.1	Find the slope of a line passing through two points.
			P2.2	Write the equation of a line with a given point and slope.
			P2.3	Write the equation of a line in slope-intercept form.
			P2.4	Write the equation of a vertical or horizontal line.
			P2.5	Write equations of lines that are parallel

				or perpendicular to a given line.
		Functions and Their Graphs	P3.1	Use function notation to represent and evaluate a function.
			P3.2	Find the domain and range of a function.
			P3.3	Sketch the graph of a function.
			P3.4	Identify different types of transformations of functions.
			P3.5	Classify functions and recognize combinations of functions.
Calculus	The branch of mathematics concerned with the calculation of instantaneous rates of change (differential calculus) and the summation of infinitely many small factors to determine some whole (integral calculus).	Limits and Their Properties: A preview of Calculus	C1.1.1	Understand what calculus is and how it compares to precalculus.
			C1.1.2	Understand that the tangent line problem is basic to calculus.
		Limits and Their Properties: Finding Limits Graphically and Numerically	C1.2.1	Estimate a limit using a numerical or graphical approach.
			C1.2.2	Learn different ways that a limit can fail to exist.
		Limits and Their Properties: Evaluating Limits Analytically	C1.3.1	Evaluate a limit using properties of limits.
			C1.3.2	Develop and use a strategy for finding limits.
			C1.3.3	Evaluate a limit using dividing out and rationalizing techniques.
SAT	Preparation for the SAT standardized test that is widely used for college admissions.	SAT Practice	SAT	Learning different strategies and tactics to solve various SAT questions.