

Comparison Between Regents & Honors Level Precalculus

	Regents	Honors
Overview	<p>Precalculus is the study of functions and algebraic, geometric, and trigonometric principles and techniques. This course prepares students for non-AP Calculus.</p> <p><i>30 minutes of homework each night.</i></p>	<p>Precalculus Honors is an in-depth study of functions and algebraic, geometric, and trigonometric principles and techniques. Graphing calculators are used to explore, solve, and verify various functions, equations, and inequalities. This course prepares students for AB or BC Calculus.</p> <p><i>40-60 minutes of homework each night.</i></p>
Pace	<p>Topics are covered at a pace that allows for the review of key concepts from prior courses and the remediation of deficiencies in critical skills.</p>	<p>Progresses at a very fast pace, covering the greatest breadth and depth of topics. Students are expected to have mastered the skills and concepts covered in prior courses.</p> <p><i>A topic that spans five classes in regents is typically allotted three classes.</i></p>
Content	<p>Concepts are introduced using concrete examples. An applied approach to topics is employed, focusing on application, method and skill development.</p>	<p>Mathematical concepts are introduced at an abstract and theoretical level. New ideas are developed through student investigation with minimal guidance from the teacher. Students are expected to apply their knowledge to open-ended and non-routine problems.</p> <p><i>Students are expected to learn material by reading the textbook and/or solving problems on their own.</i></p> <p>Additional topics include: Polar Coordinates, Complex Numbers, De Moivre's Theorem, Matrices and Determinants, Mathematical Induction, Moving Objects, Arithmetic and Geometric Sequences and Series.</p>
Assessment	<p>Tests consist of multiple choice and free response questions. There is unrestricted use of the graphing calculator.</p>	<p>Tests consist of pre-AP examination level questions that require students to analyze and interpret information. Challenging free response questions require mathematical and conceptual thinking.</p> <p><i>Students are often required to take tests and quizzes without the use of calculators.</i></p>

		Long and Short term projects are used to explore and discover advanced mathematical concepts.
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