

Standards**Geometry**

Standard 1 : Mathematical Processes	Level 1	THIS LEVEL IS NOT REPRESENTED AT THIS GRADE
	Level 2	THIS LEVEL IS NOT REPRESENTED AT THIS GRADE
	Level 3	<p>CLE 3108.1.1 Use mathematical language, symbols, definitions, proofs and counterexamples correctly and precisely in mathematical reasoning.</p> <p>CLE 3108.1.4 Move flexibly between multiple representations (contextual, physical, written, verbal, iconic/pictorial, graphical, tabular, and symbolic), to solve problems, to model mathematical ideas, and to communicate solution strategies.</p> <p>CLE 3108.1.5 Recognize and use mathematical ideas and processes that arise in different settings, with an emphasis on formulating a problem in mathematical terms, interpreting the solutions, mathematical ideas, and communication of solution strategies.</p> <p>CLE 3108.1.6 Employ reading and writing to recognize the major themes of mathematical processes, the historical development of mathematics, and the connections between mathematics and the real world.</p>
	Level 4	<p>CLE 3108.1.2 Apply and adapt a variety of appropriate strategies to problem solving, including testing cases, estimation, and then checking induced errors and the reasonableness of the solution.</p> <p>CLE 3108.1.3 Develop inductive and deductive reasoning to independently make and evaluate mathematical arguments and construct appropriate proofs; include various types of reasoning, logic, and intuition.</p> <p>CLE 3108.1.7 Use technologies appropriately to develop understanding of abstract mathematical ideas, to facilitate problem solving, and to produce accurate and reliable models.</p>

Standard 2: Number and Operations	Level 1	THIS LEVEL IS NOT REPRESENTED AT THIS GRADE
	Level 2	CLE3108.2.2 Explore vectors as a numeric system, focusing on graphic representations and the properties of the operation.
	Level 3	CLE3108.2.1 Establish the relationships between the real numbers and geometry; explore the importance of irrational numbers to geometry.
	Level 4	CLE3108.2.3 Establish an ability to estimate, select appropriate units, evaluate accuracy of calculations and approximate error in measurement in geometric settings.

Standard 3 : Algebra	Level 1	THIS LEVEL IS NOT REPRESENTED AT THIS GRADE
	Level 2	CLE 3108.3.2 Explore the effect of transformations on geometric figures and shapes in the coordinate plane.
	Level 3	CLE 3108.3.1 Use analytic geometry tools to explore geometric problems involving parallel and perpendicular lines, circles, and special points of polygons.
	Level 4	THIS LEVEL IS NOT REPRESENTED AT THIS GRADE

Standard 4 : Geometry and Measurement	Level 1	THIS LEVEL IS NOT REPRESENTED AT THIS GRADE
	Level 2	THIS LEVEL IS NOT REPRESENTED AT THIS GRADE
	Level 3	<p>CLE 3108.4.2 Describe the properties of regular polygons, including comparative classification of them and special points and segments.</p> <p>CLE 3108.4.4 Develop geometric intuition and visualization through performing geometric constructions with straightedge/compass and with technology.</p> <p>CLE 3108.4.7 Apply the major concepts of transformation geometry to analyzing geometric objects and symmetry.</p> <p>CLE 3108.4.8 Establish processes for determining congruence and similarity of figures, especially as related to scale factor, contextual applications, and transformations.</p>
	Level 4	<p>CLE 3108.4.1 Develop the structures of geometry, such as lines, angles, planes, and planar figures, and explore their properties and relationships.</p> <p>CLE 3108.4.3 Develop an understanding of the tools of logic and proof, including aspects of formal logic as well as construction of proofs.</p> <p>CLE 3108.4.5 Extend the study of planar figures to three-dimensions, including the classical solid figures, and develop analysis through cross-sections.</p> <p>CLE 3108.4.6 Generate formulas for perimeter, area, and volume, including their use, dimensional analysis, and applications.</p> <p>CLE 3108.4.9 Develop the role of circles in geometry, including angle measurement, properties as a geometric figure, and aspects relating to the coordinate plane.</p> <p>CLE 3108.4.10 Develop the tools of right triangle trigonometry in the contextual applications, including the Pythagorean Theorem, Law of Sines and Law of Cosines</p>

Standard 5 : Data, Probability, and Statistics	Level 1	THIS LEVEL IS NOT REPRESENTED AT THIS GRADE
	Level 2	CLE 3108.5.2 Develop the basic principles of geometric probability.
	Level 3	CLE 3108.5.1 Analyze, interpret, employ and construct accurate statistical graphs.
	Level 4	THIS LEVEL IS NOT REPRESENTED AT THIS GRADE