



To: State Board of Education
From: Michael Rowland
Cc'ed: Karli Saracini, Joan Luneau, Melissa Jacks
Date: July 2020
Re: Assessment for Geometry (7-12) Endorsement

Geometry (7-12) Endorsement Assessment

Current Geometry (7-12) Endorsement Assessment:	Proposed Geometry (7-12) Endorsement Assessment:
None – new licensure area	Praxis® Geometry (5163) Recommended Cut Score: 139 (-1 SEM)
	Effective Immediately

Rationale

Geometry (7-12) is an endorsement area added to a standard license by testing out. To meet the demand for geometry teachers, the Department recommends the Praxis® Geometry (5163) with a cut score of 139.

The Praxis® Geometry Study Companion describes the purpose and structure of the test. The test measures whether entry-level geometry teachers have the mathematical knowledge and competencies believed necessary for competent professional practice. The test taker will be required to understand and work with mathematical concepts, to reason mathematically, to make conjectures, to see patterns, to justify statements using informal logical arguments, and to construct simple proofs. Additionally, the examinee will be expected to solve problems by integrating knowledge from different areas of mathematics, to use various representations of concepts, to solve problems that have several solution paths, and to develop mathematical models and use them to solve real-world problems.

The 130-minute assessment contains 50 selected-response items covering two content areas: Properties of Geometric Plane Shapes, Congruence, Similarity, Proof, Constructions, and Trigonometry (approximately 24 items) and Coordinate Geometry, Circles, Three-Dimensional Geometry, and Geometric Modeling (approximately 26 items).

In May 2019, Educational Testing Service (ETS) conducted a multistate standard setting study in Princeton, NJ. Two Arkansas math educators participated in the study. As a result, a study value of 148 was determined, and 139 is the score with -1 standard error of measurement (SEM). In February 2020, ETS representatives facilitated a state review of the Geometry (5163) in Little Rock. Feedback from Arkansas math educators indicate the Praxis® Geometry (5163) is an appropriate licensure test for the Geometry (7-12) endorsement.

For the licensure assessment to add the Geometry (7-12) endorsement to a Standard Arkansas Educator License, the Department recommends adopting the Praxis® Geometry (5163) with a cut score of 139, effective immediately.