



To: PLSB
From: Michael Rowland
Cc'ed: Karli Saracini, Joan Luneau, Melissa Jacks
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Re: Assessment for Mathematics (7-12) Licensure

Mathematics (7-12) Assessment

Current Mathematics (7-12) Licensure Assessment:	Proposed Mathematics (7-12) Licensure Assessment:
Praxis® Mathematics (5161)	Praxis® Mathematics (5165) Recommended Cut Score: 152 (-1 SEM)
	Effective September 1, 2022

Rationale

Mathematics (7-12) is a first-time licensure area and is also an add-on licensure area. The current Mathematics (7-12) licensure test is the Praxis® Mathematics (5161). Educational Testing Service (ETS) has updated the 5161. The new assessment is the Praxis® Mathematics (5165).

The Praxis® Mathematics Study Companion describes the purpose and structure of the 5165. The test measures the knowledge and competencies important for safe and effective beginning practice as a secondary school mathematics teacher. Approximately 25 percent of the questions call for application of mathematics within a teaching scenario or an instructional task. Such questions—designed to measure applications of mathematics knowledge and skills to the kinds of decisions and evaluations a teacher must make during work with students, curriculum, and instruction—situate mathematics content questions in tasks that are critical for teaching. A full list of the teaching tasks covered, which have been identified based on research on mathematics instructions and are a routine part of mathematics instruction, is provided in Tasks of Teaching Mathematics section of the Study Companion.

The 180-minute assessment contains 66 selected-response questions covering four content areas: Number & Quantity and Algebra (approximately 20 questions), Functions and Calculus (approximately 20 questions), Geometry (approximately 13 questions), and Statistics & Probability (approximately 13 questions).

According to the Study Companion, the assessment is designed and developed through work with practicing teachers and teacher educators to reflect the mathematics curriculum as well as state and national standards for mathematics, including the National Governors Association Center for Best Practices and the Council of Chief State School Officers Common Core State Standards for Mathematics (2010), the National Council of Teachers of Mathematics (NCTM) and the Council of the Accreditation of Educator Preparation (CAE) NCTM CAEP Standards (2012), and the NCTM Principles and Standards for School Mathematics (2000).

In February 2021, ETS conducted a virtual multistate standard setting study. Two Arkansas math educators participated in the study. As a result, a study value of 159 was determined, and 152 is the score with -1 standard error of measurement (SEM).

For the Mathematics (7-12) licensure assessment, the Department recommends adopting the Praxis® Mathematics (5165) with a cut score of 152, effective September 1, 2022.