

Alignment of OAE Integrated Mathematics Assessment Framework with Ohio-specified Standards

This alignment study identifies the national and/or Ohio educational standards that are addressed in whole or in part by each competency of the assessment framework. An indication of alignment does not necessarily imply complete congruence of the content of an OAE test competency with the relevant standard. The information in this document is subject to change if revisions are made to the assessment framework. Any changes will fully supersede the information contained in this document.

Competencies		Ohio Educational Preparation Standards	Ohio Educator Standards	Ohio Student Standards
Integrated Mathematics (7-12)		NCATE/NCTM Program Standards (2003): Programs for Initial Preparation of Mathematics Teachers-Secondary	Ohio Standards for the Teaching Profession	Ohio's New Learning Standards: K-12 Mathematics
<u>Mathematical Processes and Number Sense</u>				
0001	Understand mathematical problem solving.	1	2	Algebra: HS; Functions: HS
0002	Understand mathematical communication, connections, and reasoning.	2-4	2	Algebra: HS
0003	Understand number theory.	9	2	The Number System: Grade 7-8
<u>Patterns, Algebra and Functions</u>				
0004	Understand relations and functions.	10	2	Expressions and Equations: Grade 7-8; Algebra: HS; Functions: HS
0005	Understand linear, quadratic, and higher-order polynomial functions.	10	2	Expressions and Equations: Grade 7-8; Algebra: HS; Functions: HS

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0006	Understand exponential and logarithmic functions.	10	2	Algebra: HS; Functions: HS
0007	Understand rational, radical, absolute value, and piece-wise defined functions.	10	2	Algebra: HS; Functions: HS
<u>Measurement and Geometry</u>				
0008	Understand measurement principles and procedures.	15	2	
0009	Understand Euclidean geometry in two and three dimensions	11	2	Geometry: Grade 7-HS
0010	Understand coordinate and transformational geometry.	11	2	Geometry: Grade 7- HS
<u>Trigonometry and Calculus</u>				
0011	Understand trigonometric functions.	12	2	Functions: HS; Geometry: HS
0012	Understand differential calculus.	12	2	
0013	Understand integral calculus.	12	2	

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<u>Statistics, Probability, and Discrete Mathematics</u>				
0014	Understand principles and techniques of statistics.	14	2	Statistics and Probability: Grade 7- HS
0015	Understand principles and techniques of probability.	14	2	Statistics and Probability: Grade 7- HS
0016	Understand principles of discrete mathematics.	13	2	