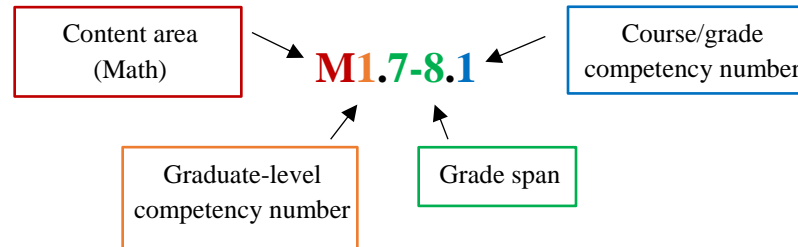


Grades 9-12 Math Competencies

Competency Coding



High School Math Competency Checklist

Competencies	Algebra 1	Algebra 1 (Two Year Program)	Algebra 2 & Honors	Algebra for Finance 1A/1B	Accounting 1A	Accounting 1B	Computer Programming	Geometry & Honors	Introduction to Statistics	Accounting 2A/ 2B	Math for the Trades & Tech Careers	Pre-Calculus	Survey of Math in Society
Symbolic Expression: M1: Graduates of the FNSBSD will be able to reason abstractly and utilize symbolic expressions and mathematical models.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
M1.9-12.1: The learner will write, apply, and provide a rationale for a mathematical model representing a given situation.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
M1.9-12.2: The learner will interpret and use symbols to express relationships and justify reasoning when solving problems.	✓	✓	✓	✓		✓	✓	✓	✓		✓	✓	✓

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Numbers and Number Systems: M2: Graduates of the FNSBSD will develop an applied knowledge of numbers and number systems to solve problems.	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	
M2.9-12.1: The learner will justify how to apply properties of real number systems to variable expressions in a variety of contexts.	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	
Reasoning and Strategic Thinking: M3: Graduates of the FNSBSD will use evidence to support authentic application of concepts and support mathematical arguments.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
M3.9-12.1: The learner will use computational strategies and algorithms and provide rationale for their use.	✓	✓	✓	✓		✓	✓	✓	✓		✓	✓	✓
M3.9-12.2: The learner will reason quantitatively when analyzing, representing, and solving problems.	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓
M3.9-12.3: The learner will compare the effectiveness or logic of two plausible arguments or models.	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓		✓

Competencies	Algebra 1	Algebra 1 (Two Year Program)	Algebra 2 & Honors	Algebra for Finance 1A/1B	Accounting 1A	Accounting 1B	Computer Programming	Geometry & Honors	Introduction to Statistics	Accounting 2A/ 2B	Math for the Trades & Tech Careers	Pre-Calculus	Survey of Math in Society
Measurement: M4: Graduates of the FNSBSD will explain reasoning when applying and modeling geometric principles.			✓	✓				✓			✓	✓	✓
M4.9-12.1: The learner will provide rationale for solving measurement problems that require making conversions among various units and measurement systems, or applying the effect of a scale factor.			✓	✓				✓			✓	✓	✓
Algebraic Functions, Patterns, and Relations: M5: Graduates of the FNSBSD will utilize patterns, relations, and functions to compare, interpret, and analyze situations.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
M5.9-12.1: The learner will apply properties of arithmetic and algebra to simplify and manipulate symbolic expressions or models.	✓	✓	✓	✓		✓	✓	✓			✓	✓	✓
M5.9-12.2: The learner will write and apply algebraic modes to represent and answer questions about a given situation.	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓
M5.9-12.3: The learner will interpret, analyze, and use relations and functions applied in a variety of contexts, including real-world phenomena.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Competencies	Algebra 1	Algebra 1 (Two Year Program)	Algebra 2 & Honors	Algebra for Finance 1A/1B	Accounting 1A	Accounting 1B	Computer Programming	Geometry & Honors	Introduction to Statistics	Accounting 2A/ 2B	Math for the Trades & Tech Careers	Pre-Calculus	Survey of Math in Society
M5.9-12.4: The learner will analyze relations and functions, using multiple representations.	✓	✓	✓	✓			✓					✓	✓
M5.9-12.5: The learner will identify, build, and perform operations on relations and functions and justify their reasoning.			✓	✓								✓	✓
Geometry: M6: Graduates of the FNSBSD will solve problems involving spatial reasoning and model geometric concepts in applied contexts.				✓				✓					
M6.9-12.1: The learner will apply geometric theorems and postulates to solve problems, create arguments, and support their reasoning.				✓				✓					
M6.9-12.2: The learner will use geometric theorems and postulates to construct and apply viable arguments.								✓					
M6.9-12.3: The learner will create and use a formal geometric construction, using appropriate tools, to illustrate geometric properties.				✓				✓					

Competencies	Algebra 1	Algebra 1 (Two Year Program)	Algebra 2 & Honors	Algebra for Finance 1A/1B	Accounting 1A	Accounting 1B	Computer Programming	Geometry & Honors	Introduction to Statistics	Accounting 2A/2B	Math for the Trades & Tech Careers	Pre-Calculus	Survey of Math in Society
Data, Analysis, Probability, and Statistics: M7: Graduates of the FNSBSD will apply statistical methods to summarize, represent, analyze, and interpret data.		✓		✓	✓	✓			✓	✓	✓	✓	✓
M7.9-12.1: The learner will formulate questions to clarify the problem at hand and formulate one (or more) questions that can be answered with data.				✓	✓	✓			✓	✓	✓		✓
M7.9-12.2: The learner will design and implement a plan to collect the appropriate data to answer the statistical question.				✓	✓	✓			✓		✓		✓
M7.9-12.3: The learner will summarize data using appropriate statistics.		✓		✓	✓	✓			✓	✓	✓	✓	✓
M7.9-12.4: The learner will select appropriate graphical and numerical methods, and use these methods to represent the data in a way that supports interpretation.		✓		✓	✓	✓			✓	✓	✓	✓	✓
M7.9-12.5: The learner will interpret descriptive statistics and linear models within the context of the data and the original question.		✓		✓		✓			✓		✓		✓
M7.9-12.6: The learner will apply probability concepts to analyze and evaluate potential decisions and strategies.				✓		✓			✓		✓	✓	