

SBAC [Content Specifications for the Summative Assessment for the Common Core](#) State Standards for
Mathematics (June 2013) for High School

Claim #1 Concepts and Procedures: Students can explain and apply mathematical concepts and carry out mathematical procedures with precision and fluency.

Assessment Targets	Standards	Algebra 1,2	Geometry	Algebra 3,4
Target A	N.RN.2			x
Target B	N.RN.3	x		
Target C	N.Q.1	x		
Target D	A.SSE.2	x		x
Target E	A.SSE.3	x		x
Target F	A.APR.1	x		
Target G	A.CED.1 – A.CED.2	x		x
Target H	A.REI.2			x
Target I	A.REI.3 – A.REI.4	x		x
Target J	A.REI.10 – A.REI.12	x		x
Target K	F.IF.1 – F.IF.3	x		x
Target L	F.IF.4 – F.IF.6	x		x
Target M	F.IF.7 – F.IF.9	x		x
Target N	F.BF.1 – F.BF.2	x		x
Target O	G.SRT.6 – G.SRT.8		x	
Target P	S.ID.1 – S.ID.3	x		

Claim #2 Problem Solving: Students can solve a range of complex well-posed problems in pure and applied mathematics, making productive use of knowledge and problem solving strategies.

Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	HS
3.OA.A	4.OA.A	5.NBT.B	6.RP.A	7.RP.A	8.EE.B	N-Q.A
3.OA.D	4.NBT.B	5.NF.A	6.NS.A	7.NS.A	8.EE.C	A-SSE.A
3.NBT.A*	4.NF.A	5.NF.B	6.NS.C	7.EE.A	8.F.A	A-SSE.B
3.NF.A	4.NF.B	5.MD.A*	6.EE.A	7.EE.B	8.F.B*	A-CED.A
3.MD.A	4.NF.C	5.MD.C	6.EE.B	7.G.A*	8.G.A	A-REI.2
3.MD.B*	4.MD.A*	5.G.A*	6.EE.C	7.G.B*	8.G.B	A-REI.B
3.MD.C	4.MD.C*		6.G.A*		8.G.C*	A-REI.C
3.MD.D*						A-REI.D
						F-IF.A
						F-IF.B
						F-IF.C
						F-BF.A
						G-SRT.C
						S-ID.C
						S-CP.A

* - Denotes additional and supporting clusters

The letter A, B, C, or D following a standard identifies the cluster that will be assessed. For example, N-Q.A refers to the first cluster heading under Quantities in Number and Quantity Conceptual Category which would represent standards N.Q.1- N.Q.3.

Claim #3 Communicating Reasoning: Students can clearly and precisely construct viable arguments to support their own reasoning and to critique the reasoning of others.

Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	HS
3.OA.B	4.OA.3	5.NBT.2	6.RP.A	7.RP.2	8.EE.1	N-RN.A
3.NF.A	4.NBT.A	5.NBT.6	6.RP.3	7.NS.A	8.EE.5	N-RN.B
3.NF.1	4.NBT.5	5.NBT.7	6.NS.A	7.NS.1	8.EE.6	N-RN.3
3.NF.2	4.NBT.6	5.NF.1	6.NS.1	7.NS.2	8.EE.7a	A-SSE.2
3.NF.3	4.NF.A	5.NF.2	6.NS.C	7.EE.1	8.EE.7b	A-APR.1
3.MD.A	4.NF.1	5.NF.B	6.NS.5	7.EE.2	8.EE.8a	A-APR.B
3.MD.7	4.NF.2	5.NF.3	6.NS.6		8.F.1	A-APR.4
	4.NF.3a	5.NF.4	6.NS.7		8.F.2	A-APR.6
	4.NF.3b	5.NF.7a	6.EE.A		8.F.3	A-REI.A
	4.NF.3c	5.NF.7b	6.EE.3		8.G.1	A-REI.1
	4.NF.4a	5.MD.C	6.EE.4		8.G.2	A-REI.2
	4.NF.4b	5.MD.5a	6.EE.B		8.G.4	A-REI.C
	4.NF.C	5.MD.5b	6.EE.6		8.G.5	A-REI.10
	4.NF.7	5.G.B*	6.EE.9		8.G.6	A-REI.11
		5.G.4*			8.G.8	F-IF.1
						F-IF.5
						F-IF.9
						F-BF.3
						F-BF.4a
						F-TF.1
						F-TF.2
						F-TF.8
						G-CO.A
						G-CO.B
						G-CO.C
						G-CO.9
						G-CO.10
						G-CO.11
						G-SRT.A
						G-SRT.B

Claim #4 Modeling and Data Analysis: Students can analyze complex, real-world scenarios and can construct and use mathematical models to interpret and solve problems.

Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	HS
3.OA.A	4.OA.A	5.NBT.B	6.RP.A	7.RP.A	8.EE.3	N-Q.A
3.OA.D	4.NF.B	5.NF.A	6.NS.A	7.NS.A	8.EE.4	A-SSE.B
3.MD.A	4.MD.A*	5.NF.B	6.NS.C	7.EE.B	8.EE.B	A-CED.A
3.MD.C	4.MD.B*	5.MD.A*	6.EE.B	7.G.A*	8.EE.C	A-REI.A
3.MD.D*	4.MD.C*	5.MD.B*	6.EE.C	7.G.B*	8.F.B*	A-REI.B
		5.MD.C	6.G.A*	7.SP.A*	8.G.B	A-REI.C
		5.G.A*	6.SP.A*	7.SP.B*	8.G.C*	F-IF.B
			6.SP.B*	7.SP.C*	8.SP.A*	F-IF.C
						F-BF.A
						S-ID.A
						S-ID.B
						S-IC.1
						S-IC.B
						F-LE.A
						F-LE.B
						F-TF.5
						G-GMD.3
						G-MG

*Denotes additional and supporting clusters

REMINDER: Claim 4 tasks may also ask students to apply content from prior grades in sophisticated applications.

	CCSSM Standard	A I	A II	G
Number & Quantity	N-RN.1		*	
	N-RN.2		*	
	N-RN.3	*		
	N-Q.1	*		
	N-Q.2	*	*	
	N-Q.3	*		
	N-CN.1		*	
N-CN.2		*		
N-CN.7		*		
Algebra	A-SSE.1	*		
	A-SSE.2	*	*	
	A-SSE.3a	*		
	A-SSE.3b	*		
	A-SSE.3c	*	*	
	A-SSE.4	*	*	
	A-APR.1	*		
	A-APR.2		*	
	A-APR.3	*	*	
	A-APR.4		*	
	A-APR.6		*	
	A-CED.1	*	*	
	A-CED.2	*		
	A-CED.3	*		
	A-CED.4	*		
	A-REI.1	*	*	
	A-REI.2		*	
	A-REI.3	*		
	A-REI.4a	*		
	A-REI.4b	*	*	
	A-REI.5	*		
	A-REI.6	*	*	
	A-REI.7		*	
	A-REI.10	*		
A-REI.11	*	*		
A-REI.12	*			
Functions	F-IF.1	*		
	F-IF.2	*		
	F-IF.3	*	*	
	F-IF.4	*	*	
	F-IF.5	*		
	F-IF.6	*	*	
	F-IF.7a	*		
	F-IF.7b	*		
	F-IF.7c		*	
	F-IF.7e		*	
	F-IF.8a	*		
	F-IF.8b		*	
	F-IF.9	*	*	
	F-BF.1a	*	*	
	F-BF.1b		*	
	F-BF.2		*	
	F-BF.3	*	*	
	F-BF.4a		*	
	F-LE.1	*		
	F-LE.2	*	*	
	F-LE.3	*		
	F-LE.4		*	
	F-LE.5	*	*	
	F-TF.1		*	
	F-TF.2		*	
	F-TF.5		*	
	F-TF.8		*	

	CCSSM Standard	A I	A II	G	
Geometry	G-CO.1			*	
	G-CO.2			*	
	G-CO.3			*	
	G-CO.4			*	
	G-CO.5			*	
	G-CO.6			*	
	G-CO.7			*	
	G-CO.8			*	
	G-CO.9			*	
	G-CO.10			*	
	G-CO.11			*	
	G-CO.12			*	
	G-CO.13			*	
	G-SRT.1			*	
	G-SRT.2			*	
	G-SRT.3			*	
	G-SRT.4			*	
	G-SRT.5			*	
	G-SRT.6			*	
	G-SRT.7			*	
	G-SRT.8			*	
	G-C.1			*	
	G-C.2			*	
	G-C.3			*	
	G-C.5			*	
	G-GPE.1			*	
	G-GPE.2		*		
	G-GPE.4			*	
	G-GPE.5			*	
	G-GPE.6			*	
	G-GPE.7			*	
	G-GMD.1			*	
	G-GMD.3			*	
	G-GMD.4			*	
	G-MG.1			*	
	G-MG.2			*	
	G-MG.3			*	
	Statistics	S-ID.1	*		
		S-ID.2	*		
		S-ID.3	*		
		S-ID.4		*	
		S-ID.5	*		
		S-ID.6a	*	*	
S-ID.6b		*			
S-ID.6c		*			
S-ID.7		*			
S-ID.8		*			
S-ID.9		*			
S-IC.1			*		
S-IC.2			*		
S-IC.3			*		
S-IC.4			*		
S-IC.5			*		
S-IC.6			*		
S-CP.1			*		
S-CP.2			*		
S-CP.3			*		
S-CP.4		*			
S-CP.5		*			
S-CP.6		*			
S-CP.7		*			

The above table is a suggested break down of the Common Core State Standards by course. The curriculum teams will be making the final decisions on what standards will be in each course. At this point in time, there are only minor differences between the table above and the draft scope and sequences for high school courses.

Common Core State Standards - Mathematics

Content Emphases by Cluster

Algebra I

Not all of the content in a given grade is emphasized equally in the standards. Some clusters require greater emphasis than the others based on the depth of the ideas, the time that they take to master, and/or their importance to future mathematics.

To say that some things have greater emphasis is not to say that anything in the standards can safely be neglected in instruction. Neglecting material will leave gaps in student skill and understanding and may leave students unprepared for the challenges of a later grade.

In addition to identifying the Major, Additional, and Supporting Clusters for each grade, suggestions are given to connect the Supporting to the Major Clusters of the grade. Thus, rather than suggesting even inadvertently that some material not be taught, there is direct advice for teaching it, in ways that foster greater focus and coherence.

Numerals in parentheses designate individual content standards that are eligible for assessment in whole or in part. Underlined numerals (e.g., 1) indicate standards eligible for assessment on two or more end-of-course assessments. For more information, see Tables 1 and 2. Course emphases are indicated by: ■ Major Content; ■ Supporting Content; ○ Additional Content. Not all CCSSM content standards in a listed domain or cluster are assessed.

The Real Number System (N-RN)

- Use properties of rational and irrational numbers (3)

Quantities ★ (N-Q)

- Reason quantitatively and use units to solve problems (1, 2, 3)

Seeing Structure in Expressions (A-SSE)

- Interpret the structure of expressions (1, 2)
- Write expressions in equivalent forms to solve problems (3)

Arithmetic with Polynomials and Rational Expressions (A-APR)

- Perform arithmetic operations on polynomials (1)
- Understand the relationship between zeros and factors of polynomials (3)

Creating Equations ★ (A-CED)

- Create equations that describe numbers or relationships (1, 2, 3, 4)

Reasoning with Equations and Inequalities (A-REI)

- Understand solving equations as a process of reasoning and explain the reasoning (1)
- Solve equations and inequalities in one variable (3, 4)
- Solve systems of equations (5, 6)
- Represent and solve equations and inequalities graphically (10, 11, 12)

Interpreting Functions (F-IF)

- Understand the concept of a function and use function notation (1, 2, 3)
- Interpret functions that arise in applications in terms of the context (4, 5, 6)

Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Common Core State Standards - Mathematics Content Emphases by Cluster Algebra I - Continued

- Analyze functions using different representations (7, 8, 9)

Building Functions (F-BF)

- Build a function that models a relationship between two quantities (1)
- Build new functions from existing functions (3)

Linear, Quadratic, and Exponential Models★ (F-LE)

- Construct and compare linear, quadratic, and exponential models and solve problems (1, 2, 3)
- Interpret expressions for functions in terms of the situation they model (5)

Interpreting categorical and quantitative data (S-ID)

- Summarize, represent, and interpret data on a single count or measurement variable (1, 2, 3)
- Summarize, represent, and interpret data on two categorical and quantitative variables (5, 6)
- Interpret linear models (7, 8, 9)

Common Core State Standards - Mathematics

Content Emphases by Cluster

Algebra II

Key: ■ Major Clusters; ■ Supporting Clusters; ● Additional Clusters

The Real Number System (N-RN)

- Extend the properties of exponents to rational exponents (1, 2)

Quantities★ (N-Q)

- Reason quantitatively and use units to solve problems (2)

The Complex Number System (N-CN)

- Perform arithmetic operations with complex numbers (1, 2)
- Use complex numbers in polynomial identities and equations (7)

Seeing Structure in Expressions (A-SSE)

- Interpret the structure of expressions (2)
- Write expressions in equivalent forms to solve problems (3, 4)

Arithmetic with Polynomials and Rational Expressions (A-APR)

- Understand the relationship between zeros and factors of polynomials (2, 3)
- Use polynomial identities to solve problems (4)
- Rewrite rational expressions (6)

Creating Equations★ (A-CED)

- Create equations that describe numbers or relationships (1)

Reasoning with Equations and Inequalities (A-REI)

- Understand solving equations as a process of reasoning and explain the reasoning (1, 2)
- Solve equations and inequalities in one variable (4)
- Solve systems of equations (6, 7)
- Represent and solve equations and inequalities graphically (11)

Interpreting Functions (F-IF)

- Understand the concept of a function and use function notation (3)
- Interpret functions that arise in applications in terms of the context (4, 6)
- Analyze functions using different representations (7, 8, 9)

Building Functions (F-BF)

- Build a function that models a relationship between two quantities (1, 2)
- Build new functions from existing functions (3, 4a)

Linear, Quadratic, and Exponential Models★ (F-LE)

- Construct and compare linear, quadratic, and exponential models and solve problems (2, 4)
- Interpret expressions for functions in terms of the situation they model (5)

Trigonometric Functions (F-TF)

- Extend the domain of trigonometric functions using the unit circle (1, 2)
- Model periodic phenomena with trigonometric functions (5)

Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Common Core State Standards - Mathematics

Content Emphases by Cluster

Algebra II - Continued

- Prove and apply trigonometric identities (8)

Expressing Geometric Properties with Equations (G-PE)

- Translate between the geometric description and the equation for a conic section (2)

Interpreting categorical and quantitative data (S-ID)

- Summarize, represent, and interpret data on a single count or measurement variable (4)
- ▣ Summarize, represent, and interpret data on two categorical and quantitative variables (6)

Making Inferences and Justifying Conclusions (S-IC)

- ▣ Understand and evaluate random processes underlying statistical experiments (1, 2)
- Make inferences and justify conclusions from sample surveys, experiments and observational studies (3, 4, 5, 6)

Conditional Probability and the Rules of Probability (S-CP)

- Understand independence and conditional probability and use them to interpret data (1, 2, 3, 4, 5)
- Use the rules of probability to compute probabilities of compound events in a uniform probability model (6, 7)

Common Core State Standards - Mathematics

Content Emphases by Cluster

Geometry

Key: ■ Major Clusters; ■ Supporting Clusters; ● Additional Clusters

Congruence (G-CO)

- Experiment with transformations in the plane (1, 2, 3, 4, 5)
- Understand congruence in terms of rigid motions (6, 7, 8)
- Prove geometric theorems (9, 10, 11)
- Make geometric constructions (12, 13)

Similarity, Right Triangles, and Trigonometry (G-SRT)

- Understand similarity in terms of similarity transformations (1, 2, 3)
- Prove theorems using similarity (4, 5)
- Define trigonometric ratios and solve problems involving right triangles (6, 7, 8)

Circles (G-C)

- Understand and apply theorems about circles (1, 2, 3)
- Find arc lengths and areas of sectors of circles (5)

Expressing Geometric Properties with Equations (G-GPE)

- Translate between the geometric description and the equation of a conic section (1)
- Use coordinates to prove simple geometric theorems algebraically (4, 5, 6, 7)

Geometric measurement and dimension (G-GMD)

- Explain volume formulas and use them to solve problems (1, 3)
- Visualize relationships between two-dimensional and three-dimensional objects (4)

Modeling with Geometry (G-MG)

- Apply geometric concepts in modeling situations (1, 2, 3)

Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.