

## Content Targets for Claim 1 - 4

### Grade 3 Claim 1 Targets

Target Sampling Mathematics Grade 3						
Claim	Content Category	Assessment Targets	DOK	Items		Total Items
				CAT	PT	
1. Concepts and Procedures	Priority Cluster	B. Understand properties of multiplication and the relationship between multiplication and division.	1	5-6	0	17-20
		C. Multiply and divide within 100.	1			
		I. Geometric measurement: understand concepts of area and relate area to multiplication and to addition.	1, 2			
		G. Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.	1, 2			
		D. Solve problems involving the four operations, and identify and explain patterns in arithmetic.	2	5-6		
		F. Develop understanding of fractions as numbers.	1, 2			
	A. Represent and solve problems involving multiplication and division.	1, 2	2-3			
	Supporting Cluster	E. Use place value understanding and properties of operations to perform multi-digit arithmetic.	1	3-4		
		J. Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.	1			
		K. Reason with shapes and their attributes.	1, 2			
H. Represent and interpret data.		2, 3	1			

### Grade 3 Claim 2-4 Targets

Target Sampling Mathematics Grade 3						
Claim	Content Category	Assessment Targets	DOK	Items		Total Items
				CAT	PT	
2. Problem Solving 4. Modeling and Data Analysis	Problem Solving (drawn across content domains)	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	2	1-2	8-10
		B. Select and use appropriate tools strategically.	1, 2, 3	1		
		C. Interpret results in the context of a situation.				
		D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).				
	Modeling and Data Analysis (drawn across content domains)	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace.	2, 3	1	1-3	
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem.	2, 3, 4	1		
		E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	1, 2, 3	1		
C. State logical assumptions being used.	3, 4	0				
3. Communicating Reasoning	Communicating Reasoning (drawn across content domains)	A. Test propositions or conjectures with specific examples.	2, 3	3	0-2	8-10
		D. Use the technique of breaking an argument into cases.				
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures.	2, 3, 4	3		
		E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.				
C. State logical assumptions being used.	2, 3	2				
		F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions.				

Grade 3 Claim Distribution by Domain, Cluster, and Standard

Grade 3 Claim Distribution by Domain, Cluster, and Standard						
Domain	Cluster	Standard	Smarter Balanced Claims*			
			Claim 1	Claim 2	Claim 3	Claim 4
Operations and Algebraic Thinking	3.OA.A Represent and solve problems involving multiplication and division.	3.OA.A.1	A			
		3.OA.A.2				
		3.OA.A.3				
		3.OA.A.4				
	3.OA.B Understand properties of multiplication and the relationship between multiplication and division.	3.OA.B.5	B			
		3.OA.B.6				
	3.OA.C Multiply and divide within 100.	3.OA.C.7	C			
	3.OA.D Solve problems involving the four operations, and identify and explain patterns in arithmetic.	3.OA.D.8	D			
		3.OA.D.9				
	Number and Operations in Base Ten	3.NBT.A Use place value understanding and properties of operations to perform multi-digit arithmetic.	3.NBT.A.1	E		
3.NBT.A.2						
3.NBT.A.3						
Number and Operations - Fractions	3.NF.A Develop understanding of fractions as numbers.	3.NF.A.1	F			
		3.NF.A.2				
		3.NF.A.2a				
		3.NF.A.2b				
		3.NF.A.3				
		3.NF.A.3a				
		3.NF.A.3b				
		3.NF.A.3c				
		3.NF.A.3d				
Measurement and Data	3.MD.A Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects	3.MD.A.1	G			
		3.MD.A.2				
	3.MD.B Represent and interpret data	3.MD.B.3	H			
		3.MD.B.4				
	3.MD.C Geometric measurement: understand concepts of area and relate area to multiplication and to addition	3.MD.C.5	I			
		3.MD.C.5a				
		3.MD.C.5b				
		3.MD.C.6				
		3.MD.C.7				
		3.MD.C.7a				
		3.MD.C.7b				
		3.MD.C.7c				
	3.MD.C.7d					
	3.MD.D Geometric measurement: recognize perimeter as an attribute of plan figures and distinguish between linear and area measures	3.MD.D.8	J			
Geometry	3.G.A Reason with shapes and their attributes	3.G.A.1	K			
		3.G.A.2				

These pages were adapted from open source documents available on the Smarter Balanced Website: <http://www.smarterbalanced.org/assessments/development/> August 2016

# Grade 4 Claim Distribution, Priority/Supporting Cluster, Target, DOK, Vertical Alignments, and Question Example Banks

## Grade 4 Claim 1 Targets

Target Sampling Mathematics Grade 4						
Claim	Content Category	Assessment Targets	DOK	Items		Total Items
				CAT	PT	
1. Concepts and Procedures	Priority Cluster	A. Use the four operations with whole numbers to solve problems.	1, 2	8-9	0	17-20
		E. Use place value understanding and properties of operations to perform multi-digit arithmetic.	1, 2			
		F. Extend understanding of fraction equivalence and ordering.	1, 2			
		G. Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.	1, 2	2-3		
		D. Generalize place value understanding for multi-digit whole numbers.	1, 2	1-2		
	H. Understand decimal notation for fractions, and compare decimal fractions.	1, 2	1			
	Supporting Cluster	I. Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.	1, 2	2-3		
		K. Geometric measurement: understand concepts of angle and measure angles.	1, 2			
		B. Gain familiarity with factors and multiples.	1, 2	1		
		C. Generate and analyze patterns.	2, 3			
J. Represent and interpret data.		1, 2				
L. Draw and identify lines and angles, and classify shapes by properties of their lines and angles.	1, 2	1				

## Grade 4 Claim 2-4 Targets

Target Sampling Mathematics Grade 4						
Claim	Content Category	Assessment Targets	DOK	Items		Total Items
				CAT	PT	
2. Problem Solving 4. Modeling and Data Analysis	Problem Solving (drawn across content domains)	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	2	1-2	8-10
		B. Select and use appropriate tools strategically.	1, 2, 3	1		
		C. Interpret results in the context of a situation.				
	Modeling and Data Analysis (drawn across content domains)	D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	2, 3	1	1-3	
		A. Apply mathematics to solve problems arising in everyday life, society, and the workplace.				
		D. Interpret results in the context of a situation.				
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem.	2, 3, 4	1		
E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	1, 2, 3	1				
C. State logical assumptions being used.						
F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	3, 4	0				
3. Communicating Reasoning	Communicating Reasoning (drawn across content domains)	A. Test propositions or conjectures with specific examples.	2, 3	3	0-2	8-10
		D. Use the technique of breaking an argument into cases.				
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures.	2, 3, 4	3		
		E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.				
C. State logical assumptions being used.	2, 3	2				
F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions.						

Grade 4 Claim Distribution by Domain, Cluster, and Standard

Grade 4 Claim Distribution by Domain, Cluster, and Standard						
Domain	Cluster	Standard	Smarter Balanced Claims*			
			Claim 1	Claim 2	Claim 3	Claim 4
Operations and Algebraic Thinking	4.OA.A Use the four operations with whole numbers to solve problems.	4.OA.A.1	A			
		4.OA.A.2				
		4.OA.A.3				
	4.OA.B Gain familiarity with factors and multiples.	4.OA.B.4	B			
		4.OA.C Generate and analyze patterns.	4.OA.C.5	C		
Number and Operations in Base Ten	4.NBT.A Generalize place value understanding for multi-digit whole numbers.	4.NBT.A.1	D			
		4.NBT.A.2				
		4.NBT.A.3				
	4.NBT.B Use place value understanding and properties of operations to perform multi-digit arithmetic.	4.NBT.B.4	E			
		4.NBT.B.5				
		4.NBT.B.6				
Number and Operations - Fractions	4.NF.A Extend understanding of fraction equivalence and ordering.	4.NF.A.1	F			
		4.NF.A.2				
	4.NF.B Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.	4.NF.B.3	G			
		4.NF.B.3a				
		4.NF.B.3b				
		4.NF.B.3c				
		4.NF.B.3d				
		4.NF.B.4				
		4.NF.B.4a				
		4.NF.B.4b				
	4.NF.B.4c					
	4.NF.C Understand decimal notation for fractions, and compare decimal fractions.	4.NF.C.5	H			
		4.NF.C.6				
4.NF.C.7						
Measurement and Data	4.MD.A Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.	4.MD.A.1	I			
		4.MD.A.2				
		4.MD.A.3				
	4.MD.B Represent and interpret data.	4.MD.B.4	J			
		4.MD.C.5				
	4.MD.C Geometric measurement: understand concepts of angle and measure angles.	4.MD.C.5a	K			
		4.MD.C.5b				
		4.MD.C.6				
4.MD.C.7						
Geometry	4.G.A Draw and identify lines and angles, and classify shapes by properties of their lines and angles.	4.G.A.1	L			
		4.G.A.2				
		4.G.A.3				

## Grade 5 Claim 1 Targets

Target Sampling Mathematics Grade 5						
Claim	Content Category	Assessment Targets	DOK	Items		Total Items
				CAT	PT	
1. Concepts and Procedures	Priority Cluster	E. Use equivalent fractions as a strategy to add and subtract fractions.	1, 2	5-6	0	17-20
		I. Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.	1, 2			
		F. Apply and extend previous understandings of multiplication and division to multiply and divide fractions.	1, 2	4-5		
		D. Perform operations with multi-digit whole numbers and with decimals to hundredths.	1, 2	3-4		
		C. Understand the place value system.	1, 2			
	Supporting Cluster	J. Graph points on the coordinate plane to solve real-world and mathematical problems.	1	2-3		
		K. Classify two-dimensional figures into categories based on their properties.	2	2		
		A. Write and interpret numerical expressions.	1			
		B. Analyze patterns and relationships.	2			
		G. Convert like measurement units within a given measurement system.	1			
H. Represent and interpret data.	1, 2					

## Grade 5 Claim 2-4 Targets

Target Sampling Mathematics Grade 5						
Claim	Content Category	Assessment Targets	DOK	Items		Total Items
				CAT	PT	
2. Problem Solving 4. Modeling and Data Analysis	Problem Solving (drawn across content domains)	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	2	1-2	8-10
		B. Select and use appropriate tools strategically.	1, 2, 3	1		
		C. Interpret results in the context of a situation.				
		D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).				
	Modeling and Data Analysis (drawn across content domains)	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace.	2, 3	1	1-3	
		D. Interpret results in the context of a situation.	2, 3, 4	1		
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem.				
	E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	1, 2, 3	1	0		
	C. State logical assumptions being used.					
	F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	3, 4	0			
3. Communicating Reasoning	Communicating Reasoning (drawn across content domains)	A. Test propositions or conjectures with specific examples.	2, 3	3	0-2	8-10
		D. Use the technique of breaking an argument into cases.				
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures.	2, 3, 4	3		
		E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.				
	C. State logical assumptions being used.	2, 3	2			
	F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions.					

## Grade 5 Claim Distribution by Domain, Cluster, and Standard

Grade 5 Claim Distribution by Domain, Cluster, and Standard						
Domain	Cluster	Standard	Smarter Balanced Claims*			
			Claim 1	Claim 2	Claim 3	Claim 4
Operations and Algebraic Thinking	5.OA.A Write and interpret numerical expressions.	5.OA.A.1	A			
		5.OA.A.2				
	5.OA.B Analyze patterns and relationships.	5.OA.B.3	B			
Number and Operations in Base Ten	5.NBT.A Understand the place value system.	5.NBT.A.1	C			
		5.NBT.A.2				
		5.NBT.A.3				
		5.NBT.A.3a				
		5.NBT.A.3b				
		5.NBT.A.4				
	5.NBT.B Perform operations with multi-digit whole numbers and with decimals to hundredths.	5.NBT.B.5	D			
	5.NBT.B.6					
	5.NBT.B.7					
Number and Operations - Fractions	5.NF.A Use equivalent fractions as a strategy to add and subtract fractions	5.NF.A.1	E			
		5.NF.A.2				
	5.NF.B Apply and extend previous understandings of multiplication and division to multiply and divide fractions.	5.NF.B.3	F			
		5.NF.B.4				
		5.NF.B.4a				
		5.NF.B.4b				
		5.NF.B.5a				
		5.NF.B.5b				
		5.NF.B.6				
		5.NF.B.7				
		5.NF.B.7a				
		5.NF.B.7b				
5.NF.B.7c						
Measurement and Data	5.MD.A Convert like measurement units within a given measurement system.	5.MD.A.1	G			
	5.MD.B Represent and interpret data.	5.MD.B.2	H			
	5.MD.C Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.	5.MD.C.3	I			
		5.MD.C.3a				
		5.MD.C.3b				
		5.MD.C.4				
		5.MD.C.5a				
		5.MD.C.5b				
5.MD.C.5c						
Geometry	5.G.A Graph points on the coordinate plane to solve real-world and mathematical problems.	5.G.A.1	J			
		5.G.A.2				
	5.G.B Classify two-dimensional figures into categories based on their properties.	5.G.B.3	K			
		5.G.B.4				

## Grade 6 Claim 1 Targets

Target Sampling Mathematics Grade 6						
Claim	Content Category	Assessment Targets	DOK	Items		Total Items
				CAT	PT	
1. Concepts and Procedures	Priority Cluster	E. Apply and extend previous understandings of arithmetic to algebraic expressions.	1	5-6	0	16-19
		F. Reason about and solve one-variable equations and inequalities.	1, 2			
		A. Understand ratio concepts and use ratio reasoning to solve problems.	1, 2	3-4		
		G. Represent and analyze quantitative relationships between dependent and independent variables.	2	2		
		B. Apply and extend previous understandings of multiplication and division to divide fractions by fractions.	1, 2			
	D. Apply and extend previous understandings of numbers to the system of rational numbers.	1, 2	2			
	Supporting Cluster	C. Compute fluently with multi-digit numbers and find common factors and multiples.	1, 2	4-5		
		H. Solve real-world and mathematical problems involving area, surface area, and volume.	1, 2			
		I. Develop understanding of statistical variability.	2			
		J. Summarize and describe distributions.	1, 2			

## Grade 6 Claim 2-4 Targetss

Target Sampling Mathematics Grade 6							
Claim	Content Category	Assessment Targets	DOK	Items		Total Items	
				CAT	PT		
2. Problem Solving 4. Modeling and Data Analysis	Problem Solving (drawn across content domains)	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	2	1-2		
		B. Select and use appropriate tools strategically.	1, 2, 3				
		C. Interpret results in the context of a situation.		1			
	D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	2, 3	1				
	Modeling and Data Analysis (drawn across content domains)			A. Apply mathematics to solve problems arising in everyday life, society, and the workplace.		2, 3	1
				D. Interpret results in the context of a situation.			
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem.	2, 3, 4	1			
		E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.					
		C. State logical assumptions being used.					
	F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1				
G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4	0					
3. Communicating Reasoning	Communicating Reasoning (drawn across content domains)	A. Test propositions or conjectures with specific examples.	2, 3	3	0-2	8-10	
		D. Use the technique of breaking an argument into cases.					
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures.	2, 3, 4	3			
		E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.					
		C. State logical assumptions being used.	2, 3	2			
		F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions.					
		G. At later grades, determine conditions under which an argument does and does not apply. (For example, area increases with perimeter for squares, but not for all plane figures.)					

## Grade 6 Claim Distribution by Domain, Cluster, and Standard

Grade 6 Claim Distribution by Domain, Cluster, and Standard						
Domain	Cluster	Standard	Smarter Balanced Claims*			
			Claim 1	Claim 2	Claim 3	Claim 4
Ratio and Proportional Relationships	6.RP.A Understand ratio concepts and use ratio reasoning to solve problems.	6.RP.A.1	A			
		6.RP.A.2				
		6.RP.A.3				
		6.RP.A.3a				
		6.RP.A.3b				
		6.RP.A.3c				
		6.RP.A.3d				
The Number System	6.NS.A Apply and extend previous understandings of multiplication and division to divide fractions by fractions.	6.NS.A.1	B			
	6.NS.B Compute fluently with multi-digit numbers and find common factors and multiples.	6.NS.B.2	C			
		6.NS.B.3				
		6.NS.B.4				
	6.NS.C Apply and extend previous understandings of numbers to the system of rational numbers.	6.NS.C.5	D			
		6.NS.C.6				
		6.NS.C.6a				
		6.NS.C.6b				
		6.NS.C.6c				
		6.NS.C.7				
		6.NS.C.7a				
		6.NS.C.7b				
		6.NS.C.7c				
		6.NS.C.7d				
6.NS.C.8						
Expressions and Equations	6.EE.A Apply and extend understandings of arithmetic to algebraic expressions.	6.EE.A.1	E			
		6.EE.A.2				
		6.EE.A.2a				
		6.EE.A.2b				
		6.EE.A.2c				
		6.EE.A.3				
	6.EE.A.4					
	6.EE.B Reason about and solve one-variable equations and inequalities.	6.EE.B.5	F			
		6.EE.B.6				
6.EE.B.7						
6.EE.B.8						
6.EE.C Represent and analyze quantitative relationships between dependent and independent variables.	6.EE.C.9	G				
Geometry	6.G.A Solve real-world and mathematical problems involving area, surface area, and volume.	6.G.A.1	H			
		6.G.A.2				
		6.G.A.3				
		6.G.A.4				
Statistics and Probability	6.SP.A Develop understanding of statistical variability.	6.SP.A.1	I			
		6.SP.A.2				
		6.SP.A.3				
	6.SP.B Summarize and describe distributions.	6.SP.B.4	J			
		6.SP.B.5				
		6.SP.B.5a				
		6.SP.B.5b				
		6.SP.B.5c				
6.SP.B.5d						

## Grade 7 Claim 1 Targets

Target Sampling Mathematics Grade 7						
Claim	Content Category	Assessment Targets	DOK	Items		Total Items
				CAT	PT	
1. Concepts and Procedures	Priority Cluster	A. Analyze proportional relationships and use them to solve real-world and mathematical problems.	2	8-9	0	17-20
		D. Solve real-life and mathematical problems using numerical and algebraic expressions and equations.	1, 2			
		B. Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.	1, 2	5-6		
		C. Use properties of operations to generate equivalent expressions.	1, 2			
	Supporting Cluster	E. Draw, construct, and describe geometrical figures and describe the relationship between them.	1, 2	2-3		
		F. Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.	1, 2			
		G. Use random sampling to draw inferences about a population.	1, 2	1-2		
		H. Draw informal comparative inferences about two populations.	2			
		I. Investigate chance processes and develop, use, and evaluate probability models.	1, 2			

## Grade 7 Claim 2-4 Targets

Target Sampling Mathematics Grade 7						
Claim	Content Category	Assessment Targets	DOK	Items		Total Items
				CAT	PT	
2. Problem Solving 4. Modeling and Data Analysis	Problem Solving (drawn across content domains)	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	2	1-2	8-10
		B. Select and use appropriate tools strategically.	1, 2, 3	1		
		C. Interpret results in the context of a situation.				
		D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).				
	Modeling and Data Analysis (drawn across content domains)	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace.	2, 3	1	1-3	
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem.	2, 3, 4	1		
		E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	1, 2, 3	1		
C. State logical assumptions being used.						
3. Communicating Reasoning	Communicating Reasoning (drawn across content domains)	A. Test propositions or conjectures with specific examples.	2, 3	3	0-2	8-10
		D. Use the technique of breaking an argument into cases.				
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures.	2, 3, 4	3		
		E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.				
		C. State logical assumptions being used.	2, 3	2		
G. At later grades, determine conditions under which an argument does and does not apply. (For example, area increases with perimeter for squares, but not for all plane figures.)						

## Grade 7 Claim Distribution by Domain, Cluster, and Standard

Grade 7 Claim Distribution by Domain, Cluster, and Standard						
Domain	Cluster	Standard	Smarter Balanced Claims*			
			Claim 1	Claim 2	Claim 3	Claim 4
Ratios and Proportional Relationships	7.RP.A Analyze proportional relationships and use them to solve real-world and mathematical problems.	7.RP.A.1	A			
		7.RP.A.2				
		7.RP.A.2a				
		7.RP.A.2b				
		7.RP.A.2c				
		7.RP.A.2d				
7.RP.A.3						
The Number System	7.NS.A Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.	7.NS.A.1	B			
		7.NS.A.1a				
		7.NS.A.1b				
		7.NS.A.1c				
		7.NS.A.1d				
		7.NS.A.2				
		7.NS.A.2a				
		7.NS.A.2b				
		7.NS.A.2c				
		7.NS.A.2d				
7.NS.A.3						
Expressions and Equations	7.EE.A Use properties of operations to generate equivalent expressions.	7.EE.A.1	C			
		7.EE.A.2				
	7.EE.B Solve real-life and mathematical problems using numerical and algebraic expressions and equations.	7.EE.B.3	D			
		7.EE.B.4				
		7.EE.B.4a				
		7.EE.B.4b				
Geometry	7.G.A Draw, construct, and describe geometrical figures and describe the relationships between them.	7.G.A.1	E			
		7.G.A.2				
		7.G.A.3				
	7.G.B Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.	7.G.B.4	F			
		7.G.B.5				
		7.G.B.6				
Statistics and Probability	7.SP.A Use random sampling to draw inferences about a population.	7.SP.A.1	G			
		7.SP.A.2				
	7.SP.B Draw informal comparative inferences about two populations.	7.SP.B.3	H			
		7.SP.B.4				
	7.SP.C Investigate chance processes and develop, use, and evaluate probability models.	7.SP.C.5	I			
		7.SP.C.6				
		7.SP.C.7				
		7.SP.C.7a				
		7.SP.C.7b				
		7.SP.C.8				
7.SP.C.8a						
7.SP.C.8b						
7.SP.C.8c						

## Grade 8 Claim 1 Targets

Target Sampling Mathematics Grade 8						
Claim	Content Category	Assessment Targets	DOK	Items		Total Items
				CAT	PT	
1. Concepts and Procedures	Priority Cluster	C. Understand the connections between proportional relationships, lines, and linear equations.	1, 2	5-6	0	17-20
		D. Analyze and solve linear equations and pairs of simultaneous linear equations.	1, 2			
		B. Work with radicals and integer exponents.	1, 2			
		E. Define, evaluate, and compare functions.	1, 2			
		G. Understand congruence and similarity using physical models, transparencies, or geometry software.	1, 2			
		F. Use functions to model relationships between quantities.	1, 2			
	H. Understand and apply the Pythagorean Theorem.	1, 2	2-3			
	A. Know that there are numbers that are not rational, and approximate them by rational numbers.	1, 2				
	Supporting Cluster	I. Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres.	1, 2	4-5		
		J. Investigate patterns of association in bivariate data.	1, 2			

## Grade 8 Claim 2-4 Targets

Target Sampling Mathematics Grade 8						
Claim	Content Category	Assessment Targets	DOK	Items		Total Items
				CAT	PT	
2. Problem Solving 4. Modeling and Data Analysis	Problem Solving (drawn across content domains)	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	2	1-2	8-10
		B. Select and use appropriate tools strategically.	1, 2, 3	1		
		C. Interpret results in the context of a situation.				
		D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).				
	Modeling and Data Analysis (drawn across content domains)	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3	1	1-3	
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem. E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	2, 3, 4	1		
		C. State logical assumptions being used. F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1		
3. Communicating Reasoning	Communicating Reasoning (drawn across content domains)	A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3	3	0-2	8-10
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.	2, 3, 4	3		
		C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions. G. At later grades, determine conditions under which an argument does and does not apply. (For example, area increases with perimeter for squares, but not for all plane figures.)	2, 3	2		

## Grade 8 Claim Distribution by Domain, Cluster, and Standard

Grade 8 Claim Distribution by Domain, Cluster, and Standard						
Domain	Cluster	Standard	Smarter Balanced Claims*			
			Claim 1	Claim 2	Claim 3	Claim 4
The Number System	8.NS.A Know that there are numbers that are not rational, and approximate them by rational numbers.	8.NS.A.1	A			
		8.NS.A.2				
Expressions and Equations	8.EE.A Work with radicals and integer exponents.	8.EE.A.1	B			
		8.EE.A.2				
		8.EE.A.3				
		8.EE.A.4				
	8.EE.B Understand the connections between proportional relationships, lines, and linear equations.	8.EE.B.5	C			
		8.EE.B.6				
	8.EE.C Analyze and solve linear equations and pairs of simultaneous linear equations.	8.EE.C.7	D			
		8.EE.C.7a				
		8.EE.C.7b				
		8.EE.C.8				
8.EE.C.8a						
	8.EE.C.8b					
	8.EE.C.8c					
Functions	8.F.A Define, evaluate, and compare functions.	8.F.A.1	E			
		8.F.A.2				
		8.F.A.3				
	8.F.B Use functions to model relationships between quantities.	8.F.B.4	F			
		8.F.B.5				
Geometry	8.G.A Understand congruence and similarity using physical models, transparencies, or geometry software.	8.G.A.1	G			
		8.G.A.1a				
		8.G.A.1b				
		8.G.A.1c				
		8.G.A.2				
		8.G.A.3				
		8.G.A.4				
	8.G.A.5					
	8.G.B Understand and apply the Pythagorean Theorem.	8.G.B.6	H			
		8.G.B.7				
		8.G.B.8				
8.G.C Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres.	8.G.C.9	I				
Statistics and Probability	8.SP.A Investigate patterns of association in bivariate data.	8.SP.A.1	J			
		8.SP.A.2				
		8.SP.A.3				
		8.SP.A.4				

## Grade HS Targets

Target Sampling Mathematics Grade 11						
Claim	Content Category	Assessment Targets	DOK	Items		Total Items
				CAT	PT	
1. Concepts and Procedures	Priority Cluster	D. Interpret the structure of expressions.	1, 2	2	0	19-22
		E. Write expressions in equivalent forms to solve problems.	1, 2			
		F. Perform arithmetic operations on polynomials.	2	1		
		G. Create equations that describe numbers or relationships.	1, 2	4-5		
		H. Understand solving equations as a process of reasoning and explain the reasoning.	1, 2			
		I. Solve equations and inequalities in one variable.	1, 2			
		J. Represent and solve equations and inequalities graphically.	1, 2	2		
		K. Understand the concept of a function and use function notation.	1, 2	2		
		L. Interpret functions that arise in applications in terms of a context.	1, 2	3-4		
	M. Analyze functions using different representations.	1, 2, 3				
	N. Build a function that models a relationship between two quantities.	2				
	Supporting Cluster	O. Define trigonometric ratios and solve problems involving right triangles.	1, 2	2		
		P. Summarize, represent, and interpret data on a single count or measurement variable.	2	1-2		
		A. Extend the properties of exponents to rational exponents.	1, 2	1		
B. Use properties of rational and irrational numbers.		1, 2				
C. Reason quantitatively and use units to solve problems.		1, 2	1			

## Grade HS Targets

Target Sampling Mathematics Grade 11							
Claim	Content Category	Assessment Targets	DOK	Items		Total Items	
				CAT	PT		
2. Problem Solving 4. Modeling and Data Analysis	Problem Solving (drawn across content domains)	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	2	1-2	8-10	
		B. Select and use appropriate tools strategically.	1, 2, 3				1
		C. Interpret results in the context of a situation.					
		D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).					
	Modeling and Data Analysis (drawn across content domains)	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3	1			1-3
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem. E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	2, 3, 4	1			
		C. State logical assumptions being used. F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1			
3. Communicating Reasoning	Communicating Reasoning (drawn across content domains)	A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3	3	0-2	8-10	
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.	2, 3, 4	3			
		C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions. G. At later grades, determine conditions under which an argument does and does not apply. (For example, area increases with perimeter for squares, but not for all plane figures.)	2, 3	2			

## Grade HS Claim Distribution by Domain, Cluster, and Standard

High School Claim Distribution by Conceptual Category, Domain, Cluster, and Standard							
Conceptual Category	Domain	Cluster	Standard	Smarter Balanced Claims*			
				Claim 1	Claim 2	Claim 3	Claim 4
Number and Quantity	The Real Number System	N-RN.A Extend the properties of exponents to rational exponents	N-RN.A.1				
			N-RN.A.2	A			
	Quantities	N-Q.A Reason quantitatively and use units to solve problems	N-RN.B.3	B			
			N-Q.A.1	C			
			N-Q.A.2				
	The Complex Number System	N-CN.A Perform arithmetic operations with complex numbers	N-Q.A.3				
			N-CN.A.1				
			N-CN.A.2				
Algebra	Seeing Structure in Expressions	A-SSE.A Interpret the structure of expressions	N-CN.C.7				
			A-SSE.A.1a				
			A-SSE.A.1b				
		A-SSE.B Write expressions in equivalent forms to solve problems	A-SSE.A.2	D			
			A-SSE.B.3a	E			
			A-SSE.B.3b				
	Arithmetic with Polynomials and Rational Expressions	A-APR.A Perform arithmetic operations on polynomials	A-SSE.B.3c				
			A-SSE.B.4				
			A-APR.A.1	F			
			A-APR.B.2				
	Creating Equations	A-REI.A Understand solving equations as a process of reasoning and explain the reasoning	A-APR.B.3a				
			A-APR.B.3b				
			A-APR.C.4				
			A-APR.D.6				
	Reasoning with Equations and Inequalities	A-REI.B Solve equations and inequalities in one variable	A-CED.A.1	G			
A-CED.A.2							
A-CED.A.3							
A-CED.A.4							
A-REI.C Solve systems of equations		A-REI.A.1					
		A-REI.A.2	H				
		A-REI.B.3					
		A-REI.B.4a	I				
		A-REI.B.4b					
		A-REI.C.5					
		A-REI.C.6					
		A-REI.C.7					
A-REI.D Represent and solve equations and inequalities graphically	A-REI.D.10						
	A-REI.D.11	J					
	A-REI.D.12						
Functions	Interpreting Functions	F-IF.A Understand the concept of a function and use function notation	F-IF.A.1	K			
			F-IF.A.2				
			F-IF.A.3	K			
		F-IF.B Interpret functions that arise in applications in terms of the context	F-IF.B.4	L			
			F-IF.B.5				
			F-IF.B.6				
		F-IF.C Analyze functions using different representations	F-IF.C.7a	M			
			F-IF.C.7b				
			F-IF.C.7c				
	F-IF.C.7e						
	F-IF.C.8a						
	F-IF.C.8b						
	Building Functions	F-BF.A Build a function that models a relationship between two quantities	F-IF.C.9				
			F-BF.A.1a	N			
			F-BF.A.2				
	Linear, Quadratic, and Exponential Models	F-LE.A Construct and compare linear, quadratic, and exponential models and solve problems	F-BF.B.3				
			F-BF.B.4				
			F-LE.A.1a				
			F-LE.A.1b				
			F-LE.A.1c				
			F-LE.A.2				
Trigonometric Functions	F-TF.A Extend the domain of trigonometric functions using the unit circle	F-LE.A.3					
		F-LE.A.4					
		F-LE.B.5					
Trigonometric Functions	F-TF.B Model periodic phenomena with trigonometric functions	F-TF.A.1					
		F-TF.A.2					
		F-TF.B.5					
Trigonometric Functions	F-TF.C Prove and apply trigonometric identities	F-TF.C.8					

High School Claim Distribution by Conceptual Category, Domain, Cluster, and Standard							
Conceptual Category	Domain	Cluster	Standard	Smarter Balanced Claims*			
				Claim 1	Claim 2	Claim 3	Claim 4
Geometry	Congruence	G-CO.A Experiment with transformations in the plane	G-CO.A.1				
			G-CO.A.2				
			G-CO.A.3				
			G-CO.A.4				
			G-CO.A.5				
		G-CO.B Understand congruence in terms of rigid motions	G-CO.B.6				
			G-CO.B.7				
			G-CO.B.8				
		G-CO.C Prove geometric theorems	G-CO.C.9				
			G-CO.C.10				
			G-CO.C.11				
		G-CO.D Make geometric constructions	G-CO.D.12				
			G-CO.D.13				
	Similarity, Right Triangles, and Trigonometry	G-SRT.A Understand similarity in terms of similarity transformations	G-SRT.A.1a				
			G-SRT.A.1b				
			G-SRT.A.2				
			G-SRT.A.3				
		G-SRT.B Prove theorems involving similarity	G-SRT.B.4				
			G-SRT.B.5				
		G-SRT.C Define trigonometric ratios and solve problems involving right triangles	G-SRT.C.6				
			G-SRT.C.7	O			
	G-SRT.C.8						
	Circles	G-C.A Understand and apply theorems about circles	G-C.A.1				
			G-C.A.2				
		G-C.A.3					
		G-C.B Find arc lengths and areas of sectors of circles	G-C.B.5				
	Expressing Geometric Properties with Equations	G-GPE.A Translate between geometric description and the equation for a conic section	G-GPE.A.1				
			G-GPE.A.2				
G-GPE.B Use coordinates to prove simple geometric theorems algebraically		G-GPE.B.4					
		G-GPE.B.5					
		G-GPE.B.6					
G-GPE.B.7							
Geometric Measurement & Dimension	G-GMD.A Explain volume formulas and use them to solve problems	G-GMD.A.1					
		G-GMD.A.3					
	G-GMD.B Visualize relationships between 2d and 3d objects	G-GMD.B.4					
Modeling with Geometry	G-MG.A Apply geometric concepts in modeling situations	G-MG.A.1					
		G-MG.A.2					
		G-MG.A.3					
Statistics and Probability	Interpreting Categorical and Quantitative Data	S-ID.A Summarize, represent, and interpret data on a single count or measurement variable	S-ID.A.1				
			S-ID.A.2	P			
			S-ID.A.3				
			S-ID.A.4				
		S-ID.B Summarize, represent, and interpret data on two categorical and quantitative variables	S-ID.B.5				
			S-ID.B.6a				
			S-ID.B.6b				
			S-ID.B.6c				
			S-ID.C Interpret linear models	S-ID.C.7			
	S-ID.C.8						
	S-ID.C.9						
	Making Inferences and Justifying Conclusions	S-IC.A Understand and evaluate random processes underlying statistical experiments	S-IC.A.1				
			S-IC.A.2				
		S-IC.B Make inferences and justify conclusions from sample surveys, experiments, and observational studies	S-IC.B.3				
			S-IC.B.4				
			S-IC.B.5				
			S-IC.B.6				
	Conditional Probability and the Rules of Probability	S-CP.A Understand independence and conditional probability and use them to interpret data	S-CP.A.1				
			S-CP.A.2				
			S-CP.A.3				
S-CP.A.4							
S-CP.A.5							
S-CP.B Use the rules of probability to compute probabilities of compound events in a uniform probability model		S-CP.B.6					
		S-CP.B.7					