



# Smarter Balanced Assessment Consortium Claims, Targets, and Standard Alignment for Math



The Smarter Balanced Assessment Consortium (SBAC) has created a hierarchy comprised of claims and targets that together can be used to make statements about student achievement. The claim is a broad statement that will outline the outcomes achieved with mastery of the standards within it. Within each claim are a variety of assessment targets that further clarify the knowledge and specific skills that cross over a cluster of standards.

The following tables layout the claims and targets for claims 1-4. Each target may feature a standard or a variety of standards that make up the skill(s) of the target. Each target also features a Depth of Knowledge level(s) and item type(s) in which the target may be assessed.

## Item Types:

- MC – Multiple Choice, Single Correct Response
- MS – Multiple Choice, Multiple Correct Response
- EQ – Equation/Numeric
- MA – Matching Tables
- TI – Fill-in tables
- DD – Drag and Drop
- HS – Hot Spot
- G – Graphing
- GI – Graphing Interaction
- ST – Short Text

## Depth of Knowledge:

- 1 - Recall
- 2 - Skill/Concept
- 3 - Strategic Thinking
- 4 - Extended Thinking

## Work:

Not all content in a given grade is emphasized equally in the standards. Some clusters require greater emphasis than others based on the depth of ideas, the time they take to master, and/or their importance to future mathematics or the demands of college and career readiness. The following tables identify the additional and supporting work for the grade by shading. If no shading is included, all standards listed are part of the major work for that level.



Claim	Target	DOK	Standards	Item Types
<b>1: Concepts and Procedures:</b> Students can explain and apply mathematical concepts and carry out mathematical procedures with precision and fluency.	<b>A:</b> Analyze proportional relationships and use them to solve real-world and mathematical problems.	2	<b>7.RP.1:</b> Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units. For example, if a person walks $\frac{1}{2}$ mile in each $\frac{1}{4}$ hour, compute the unit rate as the complex fraction $\frac{1/2}{1/4}$ miles per hour, equivalently 2 miles per hour.	EQ, MS, MA
			<b>7.RP.2:</b> Recognize and represent proportional relationships between quantities.	
			<b>7.RP.3:</b> Use proportional relationships to solve multistep ratio and percent problems. Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.	
	<b>B:</b> Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.	1, 2	<b>7.NS.1:</b> Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.	G, EQ, MS, MC, MA, DD
			<b>7.NS.2:</b> Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.	
			<b>7.NS.3:</b> Solve real-world and mathematical problems involving the four operations with rational numbers.	
	<b>C:</b> Use properties of operations to generate equivalent expressions.	1, 2	<b>7.EE.1:</b> Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.	MC, MS, EQ
			<b>7.EE.2:</b> Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related. For example, $a + 0.05a = 1.05a$ means that “increase by 5%” is the same as “multiply by 1.05.”	

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Claim	Target	DOK	Standards	Item Types
<p><b>1: Concepts and Procedures:</b> Students can explain and apply mathematical concepts and carry out mathematical procedures with precision and fluency.</p>	<p><b>D:</b> Solve real-life and mathematical problems using numerical and algebraic expressions and equations.</p>	<p>1, 2</p>	<p><b>7.EE.3</b> Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. For example: If a woman making \$25 an hour gets a 10% raise, she will make an additional <math>\frac{1}{10}</math> of her salary an hour, or \$2.50, for a new salary of \$27.50. If you want to place a towel bar <math>9\frac{3}{4}</math> inches long in the center of a door that is <math>27\frac{1}{2}</math> inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.</p>	<p>MC, EQ, MS, DD</p>
			<p><b>7.EE.4</b> Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.</p>	
	<p><b>E:</b> Draw, construct, and describe geometrical figures and describe the relationships between them.</p>	<p>1, 2</p>	<p><b>7.G.1:</b> Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.</p>	<p>MS, MA, EQ, G</p>
			<p><b>7.G.2:</b> Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle.</p>	
<p><b>7.G.3:</b> Describe the two-dimensional figures that result from slicing three-dimensional figures, as in plane sections of right rectangular prisms and right rectangular pyramids.</p>				

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Claim	Target	DOK	Standards	Item Types
<b>1: Concepts and Procedures:</b> Students can explain and apply mathematical concepts and carry out mathematical procedures with precision and fluency.	<b>F:</b> Solve real-life mathematical problem involving angle measure, area, surface area, and volume.	1, 2	<b>7.G.4:</b> Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle. <b>7.G.5:</b> Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure. <b>7.G.6:</b> Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.	EQ, MA
	<b>G:</b> Use random sampling to draw inferences about a population.	1, 2	<b>7.SP.1:</b> Understand that statistics can be used to gain information about a population by examining a sample of the population; generalizations about a population from a sample are valid only if the sample is representative of that population. Understand that random sampling tends to produce representative samples and support valid inferences. <b>7.SP.2</b> Use data from a random sample to draw inferences about a population with an unknown characteristic of interest. Generate multiple samples (or simulated samples) of the same size to gauge the variation in estimates or predictions. For example, estimate the mean word length in a book by randomly sampling words from the book; predict the winner of a school election based on randomly sampled survey data. Gauge how far off the estimate or prediction might be.	MC, MS

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Claim	Target	DOK	Standards	Item Types
<p><b>1: Concepts and Procedures:</b> Students can explain and apply mathematical concepts and carry out mathematical procedures with precision and fluency.</p>	<p><b>H:</b> Draw informal comparative inferences about two populations.</p>	2	<p><b>7.SP.3:</b> Informally assess the degree of visual overlap of two numerical data distributions with similar variabilities, measuring the difference between the centers by expressing it as a multiple of a measure of variability. For example, the mean height of players on the basketball team is 10 cm greater than the mean height of players on the soccer team, about twice the variability (mean absolute deviation) on either team; on a dot plot, the separation between the two distributions of heights is noticeable.</p> <p><b>7.SP.4:</b> Use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations. For example, decide whether the words in a chapter of a seventh-grade science book are generally longer than the words in a chapter of a fourth-grade science book.</p>	MA, EQ
	<p><b>I:</b> Investigate chance processes and develop, use, and evaluate probability models.</p>	1, 2	<p><b>7.SP.5:</b> Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around 1/2 indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event.</p> <p><b>7.SP.6:</b> Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the approximate relative frequency given the probability. For example, when rolling a number cube 600 times, predict that a 3 or 6 would be rolled roughly 200 times, but probably not exactly 200 times.</p> <p><b>7.SP.7:</b> Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy.</p> <p><b>7.SP.8:</b> Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation.</p>	MC, EQ, MA

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Claim	Target/DOK	Standards	Item Types
<p><b>2: Problem Solving:</b> Students can solve a range of well-posed problems in pure and applied mathematics, making productive use of knowledge and problem-solving strategies.</p>	<p><b>A:</b> Apply mathematics to solve well-posed problems in pure mathematics and arising in everyday life, society, and the workplace. (2, 3)</p> <p><b>B:</b> Select and use appropriate tools strategically. (1, 2)</p> <p><b>C:</b> Interpret results in the context of a situation. (2)</p> <p><b>D:</b> Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flowcharts, or formulas). (1, 2, 3)</p>	<p><b>7.RP.1:</b> Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units. For example, if a person walks <math>\frac{1}{2}</math> mile in each <math>\frac{1}{4}</math> hour, compute the unit rate as the complex fraction <math>\frac{1/2}{1/4}</math> miles per hour, equivalently 2 miles per hour.</p>	<p>MC, MS, EQ, GI, MA, TI</p>
		<p><b>7.RP.2:</b> Recognize and represent proportional relationships between quantities.</p>	
		<p><b>7.RP.3:</b> Use proportional relationships to solve multistep ratio and percent problems. Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.</p>	
		<p><b>7.NS.1:</b> Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.</p>	
		<p><b>7.NS.2:</b> Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.</p>	
		<p><b>7.NS.3:</b> Solve real-world and mathematical problems involving the four operations with rational numbers.</p>	
		<p><b>7.EE.1:</b> Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.</p>	
		<p><b>7.EE.2:</b> Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related. For example, <math>a + 0.05a = 1.05a</math> means that “increase by 5%” is the same as “multiply by 1.05.”</p>	

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Claim	Target/DOK	Standards	Item Types
<p><b>2: Problem Solving:</b> Students can solve a range of well-posed problems in pure and applied mathematics, making productive use of knowledge and problem-solving strategies.</p>	<p><b>A:</b> Apply mathematics to solve well-posed problems in pure mathematics and arising in everyday life, society, and the workplace. (2, 3)</p>	<p><b>7.EE.3</b> Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. For example: If a woman making \$25 an hour gets a 10% raise, she will make an additional 1/10 of her salary an hour, or \$2.50, for a new salary of \$27.50. If you want to place a towel bar 9 3/4 inches long in the center of a door that is 27 1/2 inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.</p>	<p>MC, MS, EQ, GI, MA, TI</p>
	<p><b>B:</b> Select and use appropriate tools strategically. (1, 2)</p>	<p><b>7.EE.4</b> Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.</p>	
	<p><b>C:</b> Interpret results in the context of a situation. (2)</p>	<p><b>7.G.1:</b> Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.</p>	
	<p><b>D:</b> Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flowcharts, or formulas). (1, 2, 3)</p>	<p><b>7.G.2:</b> Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle.</p>	
		<p><b>7.G.3:</b> Describe the two-dimensional figures that result from slicing three-dimensional figures, as in plane sections of right rectangular prisms and right rectangular pyramids.</p>	

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Claim	Target/DOK	Standards	Item Types
<p><b>2: Problem Solving:</b> Students can solve a range of well-posed problems in pure and applied mathematics, making productive use of knowledge and problem-solving strategies.</p>		<p><b>7.G.4:</b> Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle.</p>	<p>MC, MS, EQ, GI, MA, TI</p>
		<p><b>7.G.5:</b> Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure.</p>	
	<p><b>A:</b> Apply mathematics to solve well-posed problems in pure mathematics and arising in everyday life, society, and the workplace. (2, 3)</p> <p><b>B:</b> Select and use appropriate tools strategically. (1, 2)</p> <p><b>C:</b> Interpret results in the context of a situation. (2)</p> <p><b>D:</b> Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flowcharts, or formulas). (1, 2, 3)</p>	<p><b>7.G.6:</b> Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.</p>	

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Claim	Target/DOK	Standards	Item Types
<p><b>3: Communicating Reasoning:</b> Students clearly and precisely construct viable arguments to support their own reasoning and to critique the reasoning of others.</p>	<p><b>A:</b> Test propositions or conjectures with specific examples. (2)</p>	<p><b>7.RP.2:</b> Recognize and represent proportional relationships between quantities.</p>	<p>MC, MS, EQ, GI, MA, TI, ST<sup>1</sup></p>
	<p><b>B:</b> Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. (3, 4)</p>	<p><b>7.NS.1:</b> Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.</p>	
	<p><b>C:</b> State logical assumptions being used. (2, 3)</p>	<p><b>7.NS.2:</b> Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.</p>	
	<p><b>D:</b> Use the technique of breaking an argument into cases. (2, 3)</p>	<p><b>7.NS.3:</b> Solve real-world and mathematical problems involving the four operations with rational numbers.</p>	
	<p><b>E:</b> 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)</p>	<p><b>7.EE.1:</b> Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.</p>	
	<p><b>F:</b> Base arguments on concrete referents such as objects, drawings, diagrams, and actions. (2, 3)</p>	<p><b>7.EE.2:</b> Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related. For example, <math>a + 0.05a = 1.05a</math> means that “increase by 5%” is the same as “multiply by 1.05.”</p>	
	<p><b>G:</b> 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.) (3, 4)</p>		

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Claim	Target/DOK	Standards	Item Types
<p><b>4: Modeling and data Analysis:</b> Students can analyze complex, real-world scenarios and can construct and use mathematical models to interpret and solve problems.</p>	<p><b>A:</b> Apply mathematics to solve problems arising in everyday life, society, and the workplace. (2, 3)</p>	<p><b>7.RP.1:</b> Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units. For example, if a person walks <math>\frac{1}{2}</math> mile in each <math>\frac{1}{4}</math> hour, compute the unit rate as the complex fraction <math>\frac{1/2}{1/4}</math> miles per hour, equivalently 2 miles per hour.</p>	<p>MC, MS, EQ, GI, MA, TI, ST<sup>1</sup></p>
	<p><b>B:</b> Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem. (2, 3, 4)</p>	<p><b>7.RP.2:</b> Recognize and represent proportional relationships between quantities.</p>	
	<p><b>C:</b> State logical assumptions being used. (1, 2)</p>	<p><b>7.RP.3</b> Use proportional relationships to solve multistep ratio and percent problems. Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.</p>	
	<p><b>D:</b> Interpret results in the context of a situation. (2, 3)</p>	<p><b>7.NS.1:</b> Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.</p>	
	<p><b>E:</b> Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon. (3, 4)</p>	<p><b>7.NS.2:</b> Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.</p>	
	<p><b>F:</b> Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flowcharts, or formulas). (1, 2, 3)</p> <p><b>G*:</b> Identify, analyze and synthesize relevant external resources to pose or solve problems. (3, 4)</p>	<p><b>7.NS.3:</b> Solve real-world and mathematical problems involving the four operations with rational numbers.</p>	

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Claim	Target/DOK	Standards	Item Types
<p><b>4: Modeling and data Analysis:</b> Students can analyze complex, real-world scenarios and can construct and use mathematical models to interpret and solve problems.</p>	<p><b>A:</b> Apply mathematics to solve problems arising in everyday life, society, and the workplace. (2, 3)</p>	<p><b>7.EE.3</b> Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. For example: If a woman making \$25 an hour gets a 10% raise, she will make an additional 1/10 of her salary an hour, or \$2.50, for a new salary of \$27.50. If you want to place a towel bar 9 3/4 inches long in the center of a door that is 27 1/2 inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.</p>	<p>MC, MS, EQ, GI, MA, TI, ST<sup>1</sup></p>
	<p><b>B:</b> Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem. (2, 3, 4)</p>	<p><b>7.EE.4</b> Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.</p>	
	<p><b>C:</b> State logical assumptions being used. (1, 2)</p>	<p><b>7.G.1:</b> Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.</p>	
	<p><b>D:</b> Interpret results in the context of a situation. (2, 3)</p>	<p><b>7.G.2:</b> Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle.</p>	
	<p><b>E:</b> Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon. (3, 4)</p>	<p><b>7.G.3:</b> Describe the two-dimensional figures that result from slicing three-dimensional figures, as in plane sections of right rectangular prisms and right rectangular pyramids.</p>	
<p><b>F:</b> Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flowcharts, or formulas). (1, 2, 3)</p>			
<p><b>G*:</b> Identify, analyze and synthesize relevant external resources to pose or solve problems. (3, 4)</p>			

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Claim	Target/DOK	Standards	Item Types
<p><b>4: Modeling and data</b>  <b>Analysis:</b> Students can analyze complex, real-world scenarios and can construct and use mathematical models to interpret and solve problems.</p>	<p><b>A:</b> Apply mathematics to solve problems arising in everyday life, society, and the workplace. (2, 3)</p>	<p><b>7.G.4:</b> Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle.</p>	<p>MC, MS, EQ, GI, MA, TI, ST<sup>1</sup></p>
	<p><b>B:</b> Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem. (2, 3, 4)</p>	<p><b>7.G.5:</b> Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure.</p>	
	<p><b>C:</b> State logical assumptions being used. (1, 2)</p>	<p><b>7.G.6:</b> Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.</p>	
	<p><b>D:</b> Interpret results in the context of a situation. (2, 3)</p>	<p><b>7.SP.1:</b> Understand that statistics can be used to gain information about a population by examining a sample of the population; generalizations about a population from a sample are valid only if the sample is representative of that population. Understand that random sampling tends to produce representative samples and support valid inferences.</p>	
	<p><b>E:</b> Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon. (3, 4)</p>	<p><b>7.SP.2</b> Use data from a random sample to draw inferences about a population with an unknown characteristic of interest. Generate multiple samples (or simulated samples) of the same size to gauge the variation in estimates or predictions. For example, estimate the mean word length in a book by randomly sampling words from the book; predict the winner of a school election based on randomly sampled survey data. Gauge how far off the estimate or prediction might be.</p>	
	<p><b>F:</b> Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flowcharts, or formulas). (1, 2, 3)</p>		
<p><b>G*:</b> Identify, analyze and synthesize relevant external resources to pose or solve problems. (3, 4)</p>			

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Claim	Target/DOK	Standards	Item Types
<p><b>4: Modeling and data Analysis:</b> Students can analyze complex, real-world scenarios and can construct and use mathematical models to interpret and solve problems.</p>	<p><b>A:</b> Apply mathematics to solve problems arising in everyday life, society, and the workplace. (2, 3)</p>	<p><b>7.SP.3:</b> Informally assess the degree of visual overlap of two numerical data distributions with similar variabilities, measuring the difference between the centers by expressing it as a multiple of a measure of variability. For example, the mean height of players on the basketball team is 10 cm greater than the mean height of players on the soccer team, about twice the variability (mean absolute deviation) on either team; on a dot plot, the separation between the two distributions of heights is noticeable.</p>	<p>MC, MS, EQ, GI, MA, TI, ST<sup>1</sup></p>
	<p><b>B:</b> Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem. (2, 3, 4)</p>		
	<p><b>C:</b> State logical assumptions being used. (1, 2)</p>	<p><b>7.SP.5:</b> Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around 1/2 indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event.</p>	
	<p><b>D:</b> Interpret results in the context of a situation. (2, 3)</p> <p><b>E:</b> Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon. (3, 4)</p> <p><b>F:</b> Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flowcharts, or formulas). (1, 2, 3)</p> <p><b>G*:</b> Identify, analyze and synthesize relevant external resources to pose or solve problems. (3, 4)</p>	<p><b>7.SP.6:</b> Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the approximate relative frequency given the probability. For example, when rolling a number cube 600 times, predict that a 3 or 6 would be rolled roughly 200 times, but probably not exactly 200 times.</p>	

\* Denotes that target is measured in Performance Tasks only; Shaded standards denote additional and supporting clusters; <sup>1</sup> Denotes that item type is only applicable to target B; Tables were created using the released item specification tables provided by SBAC published on 2/04/2014.



Claim	Target/DOK	Standards	Item Types
<p><b>4: Modeling and data Analysis:</b> Students can analyze complex, real-world scenarios and can construct and use mathematical models to interpret and solve problems.</p>	<p><b>A:</b> Apply mathematics to solve problems arising in everyday life, society, and the workplace. (2, 3)</p>	<p><b>7.SP.7:</b> Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy.</p>	<p>MC, MS, EQ, GI, MA, TI, ST<sup>1</sup></p>
	<p><b>B:</b> Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem. (2, 3, 4)</p> <p><b>C:</b> State logical assumptions being used. (1, 2)</p> <p><b>D:</b> Interpret results in the context of a situation. (2, 3)</p> <p><b>E:</b> Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon. (3, 4)</p> <p><b>F:</b> Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flowcharts, or formulas). (1, 2, 3)</p> <p><b>G*:</b> Identify, analyze and synthesize relevant external resources to pose or solve problems. (3, 4)</p>	<p><b>7.SP.8:</b> Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation.</p>	

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