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Course 2 Middle School Math Solution
Correlation to the 2017 North Carolina Standard Course of Study

CARNEGIE LEARNING

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit (MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
NC.7.RP.1	Compute unit rates associated with ratios of fractions to solve real-world and mathematical problems.	Textbook	1: Thinking Proportionally	2: Fractional Rates	1: Making Punch: Unit Rate Representations pp. M1-51–M1-58
					2: Eggzactly!: Solving Problems with Ratios of Fractions pp. M1-59–M1-68
		MATHia Software	1: Thinking Proportionally	2: Ratio and Rate Reasoning	1: Fractional Rates
					2: Comparing Rates
NC.7.RP.2	Recognize and represent proportional relationships between quantities.	Textbook	1: Thinking Proportionally	3: Proportionality	4: Minding Your Ps and Qs: Constant of Proportionality in Multiple Representations pp. M1-139–M1-152
NC.7.RP.2a	Understand that a proportion is a relationship of equality between ratios. - Represent proportional relationships using tables and graphs. - Recognize whether ratios are in a proportional relationship using tables and graphs. - Compare two different proportional relationships using tables, graphs, equations, and verbal descriptions.	Textbook	1: Thinking Proportionally	3: Proportionality	1: How Does Your Garden Grow?: Proportional Relationships pp. M1-91–M1-108
		MATHia Software	1: Thinking Proportionally	4: Representing Proportional Relationships by Equations	1: Introduction to Direct Variation
					5: Determining Characteristics of Direct Variation Graphs
NC.7.RP.2b	Identify the unit rate (constant of proportionality) within two quantities in a proportional relationship using tables, graphs, equations, and verbal descriptions.	Textbook	1: Thinking Proportionally	3: Proportionality	2: Complying with Title IX: Constant of Proportionality pp. M1-109–M1-126
					3: Fish-Inches: Identifying the Constant of Proportionality in Graphs pp. M1-127–M1-138
		MATHia Software	1: Thinking Proportionally	4: Representing Proportional Relationships by Equations	1: Introduction to Direct Variation
					2: Writing Direct Variation Equations
					3: Converting Between Proportions and Direct Variation Equations
					4: Modeling Direct Variation
NC.7.RP.2c	Create equations and graphs to represent proportional relationships.	Textbook	1: Thinking Proportionally	2: Fractional Rates	3: Tagging Sharks: Solving Proportions Using Means and Extremes pp. M1-69–M1-82

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NC.7.RP.2c	Create equations and graphs to represent proportional relationships.	Textbook	1: Thinking Proportionally	3: Proportionality	2: Complying with Title IX: Constant of Proportionality pp. M1-109–M1-126
		MATHia Software	1: Thinking Proportionally	3: Proportional Reasoning	1: Solving Proportions Using Equivalent Ratios
					2: Solving Proportions Using Means and Extremes
				4: Representing Proportional Relationships by Equations	2: Writing Direct Variation Equations
					3: Converting Between Proportions and Direct Variation Equations
NC.7.RP.2d	Use a graphical representation of a proportional relationship in context to: - Explain the meaning of any point (x, y). - Explain the meaning of (0, 0) and why it is included. - Understand that the y-coordinate of the ordered pair (1, r) corresponds to the unit rate and explain its meaning.	Textbook	1: Thinking Proportionally	3: Proportionality	3: Fish-Inches: Identifying the Constant of Proportionality in Graphs pp. M1-127–M1-138
		MATHia Software	1: Thinking Proportionally	4: Representing Proportional Relationships by Equations	4: Modeling Direct Variation
NC.7.RP.3	Use scale factors and unit rates in proportional relationships to solve ratio and percent problems.	Textbook	1: Thinking Proportionally	2: Fractional Rates	3: Tagging Sharks: Solving Proportions Using Means and Extremes pp. M1-69–M1-82
				4: Proportional Relationships	1: Markups and Markdowns: Introducing Proportions to Solve Percent Problems pp. M1-161–M1-176
					2: Perks of Work: Calculating Tips, Commission, and Simple Interest pp. M1-177–M1-196
					3: No Taxation Without Calculation: Sales Tax, Income Tax, and Fees pp. M1-197–M1-208
					4: More Ups and Downs: Percent Increase and Percent Decrease pp. M1-209–M1-222
			2: Operating with Signed Numbers	2: Multiplying and Dividing Rational Numbers	3: Building a Wright Brothers' Flyer: Simplifying Expressions to Solve Problems pp. M2-113–M2-124
			4: Analyzing Populations and Probabilities	1: Introduction to Probability	3: Toss the Cup: Determining Experimental Probability of Simple Events pp. M4-33-M4-46

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit (MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
NC.7.RP.3	Use scale factors and unit rates in proportional relationships to solve ratio and percent problems.	MATHia Software	1: Thinking Proportionally	5: Percent Conversions	1: Fractional Percent Models
					2: Converting with Fractional Percents
				6: Proportional Reasoning and Percents	1: Using Proportions to Solve Percent Problems
					2: Solving Simple Percent Problems
				7: Problem Solving with Percent Using Proportional Relationships	1: Calculating Percent Change and Final Amounts
					2: Using Percents and Percent Change
NC.7.NS.1	Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers, using the properties of operations, and describing real-world contexts using sums and differences.	Textbook	2: Operating with Signed Numbers	1: Adding and Subtracting Rational Numbers	1: Math Football: Using Models to Understand Integer Addition pp. M2-7–M2-16
					2: Walk the Line: Adding Integers, Part I pp. M2-17–M2-30
					3: Two-Color Counters: Adding Integers, Part II pp. M2-31–M2-48
					4: What's the Difference?: Subtracting Integers pp. M2-49–M2-68
				2: Multiplying and Dividing Rational Numbers	4: Properties Schmoperties: Using Number Properties to Interpret Expressions with Signed Numbers pp. M2-125–M2-134
		MATHia Software	2: Operating with Signed Numbers	1: Integer Operations	1: Adding and Subtracting Negative Integers
					2: Using Number Lines to Add and Subtract Integers
NC.7.NS.2	Apply and extend previous understandings of multiplication and division.	MATHia Software	2: Operating with Signed Numbers	1: Integer Operations	3: Multiplying and Dividing Integers
NC.7.NS.2a	Understand that a rational number is any number that can be written as a quotient of integers with a non-zero divisor.	Textbook	2: Operating with Signed Numbers	2: Multiplying and Dividing Rational Numbers	2: Be Rational!: Quotients of Integers pp. M2-103–M2-112
NC.7.NS.2b	Apply properties of operations as strategies, including the standard algorithms, to multiply and divide rational numbers and describe the product and quotient in real-world contexts.	Textbook	2: Operating with Signed Numbers	2: Multiplying and Dividing Rational Numbers	1: Equal Groups: Multiplying and Dividing Integers pp. M2-89–M2-102
					4: Properties Schmoperties: Using Number Properties to Interpret Expressions with Signed Numbers pp. M2-125–M2-134

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit (MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
NC.7.NS.2c	Use division and previous understandings of fractions and decimals. - Convert a fraction to a decimal using long division. - Understand that the decimal form of a rational number terminates in 0s or eventually repeats.	Textbook	2: Operating with Signed Numbers	2: Multiplying and Dividing Rational Numbers	2: Be Rational!: Quotients of Integers pp. M2-103–M2-112
		MATHia Software	2: Operating with Signed Numbers	1: Integer Operations	4: Converting Rational Numbers to Decimals
NC.7.NS.3	Solve real-world and mathematical problems involving numerical expressions with rational numbers using the four operations.	Textbook	2: Operating with Signed Numbers	1: Adding and Subtracting Rational Numbers	5: All Mixed Up: Adding and Subtracting Rational Numbers pp. M2-69–M2-80
				2: Multiplying and Dividing Rational Numbers	1: Equal Groups: Multiplying and Dividing Integers pp. M2-89–M2-102
					3: Building a Wright Brothers' Flyer: Simplifying Expressions to Solve Problems pp. M2-113–M2-124
					4: Properties Schmoperties: Using Number Properties to Interpret Expressions with Signed Numbers pp. M2-125–M2-134
		MATHia Software	2: Operating with Signed Numbers	1: Integer Operations	5: Contrasting Addition and Subtraction with Multiplication and Division to Simplify Numeric Expressions
					6: Using Order of Operations to Simplify Numeric Expressions with Four Operations
					7: Using Order of Operations to Simplify Numeric Expressions with Parentheses and Exponents
					8: Using Order of Operations to Simplify Numeric Expressions in Complex Configurations
					9: Using Order of Operations to Simplify Numeric Expressions

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit (MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
NC.7.EE.1	Apply properties of operations as strategies to: - Add, subtract, factor, and expand linear expressions with rational coefficients. - Factor linear expressions with an integer GCF.	Textbook	3: Reasoning Algebraically	1: Algebraic Expressions	2: Mathematics Gymnastics: Rewriting Expressions Using the Distributive Property pp. M3-19–M3-32
					3: All My Xs: Combining Like Terms pp. M3-33–M3-43
		MATHia Software	3: Reasoning Algebraically	1: Variable Expressions	1: Factoring Linear Expressions
					2: Contrasting Addition and Subtraction with Multiplication and Division to Simplify Algebraic Expressions
					3: Using Order of Operations to Simplify Algebraic Expressions with Four Operations
					4: Using Order of Operations to Simplify Algebraic Expressions with Parentheses and Exponents
					5: Using Order of Operations to Simplify Algebraic Expression in Complex Configurations
					6: Using Order of Operations to Simplify Algebraic Expressions
NC.7.EE.2	Understand that equivalent expressions can reveal real-world and mathematical relationships. Interpret the meaning of the parts of each expression in context.	Textbook	3: Reasoning Algebraically	1: Algebraic Expressions	3: All My Xs: Combining Like Terms pp. M3-33–M3-43
				3: Multiple Representations of Equations	2: Stretches, Stacks, and Structure: Structure of Linear Equations pp. M3-139–M3-154
NC.7.EE.3	Solve multi-step real-world and mathematical problems posed with rational numbers in algebraic expressions. - Apply properties of operations to calculate with positive and negative numbers in any form. - Convert between different forms of a number and equivalent forms of the expression as appropriate.	Textbook	3: Reasoning Algebraically	1: Algebraic Expressions	1: No Substitute for Hard Work: Evaluating Algebraic Expressions pp. M3-7–M3-18
		MATHia Software	3: Reasoning Algebraically	6: Problem Solving with Two-Step Equations and Inequalities	1: Using LInear Equations and Inequalities
					2: Solving Problems with Integers
					3: Solving Problems with Decimals and Fractions
NC.7.EE.4	Use variables to represent quantities to solve real-world or mathematical problems.	Textbook	3: Reasoning Algebraically	3: Multiple Representations of Equations	4: Texas Tea and Temperature: Using Multiple Representations to Solve Problems pp. M3-169–M3-180
		MATHia Software	3: Reasoning Algebraically	2: Modeling Two-Step Expressions and Equations	1: Using Picture Algebra with Equations
					2: Modeling Two-Step Equations
				6: Problem Solving with Two-Step Equations and Inequalities	1: Using Linear Equations and Inequalities

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit (MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
NC.7.EE.4a	Construct equations to solve problems by reasoning about the quantities. - Fluently solve multistep equations with the variable on one side, including those generated by word problems. - Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach. - Interpret the solution in context.	Textbook	3: Reasoning Algebraically	2: Two-Step Equations and Inequalities	1: Picture Algebra: Modeling Equations by Equal Expressions pp. M3-53–M3-64
					2: Expressions That Play Together...: Solving Equations on a Double Number Line pp. M3-65–M3-76
					3: Formally Yours: Using Inverse Operations to Solve Equations pp. M3-77–M3-94
				3: Multiple Representations of Equations	1: Put It on the Plane: Representing Equations with Tables and Graphs pp. M3-125–M3-138
					2: Stretches, Stacks, and Structure: Structure of Linear Equations pp. M3-139–M3-154
		MATHia Software	3: Reasoning Algebraically	3: Solving Two-Step Equations	1: Checking Solutions to Linear Equations
					2: Solving with Multiplication (No Type In)
					3: Solving with Multiplication (Type In)
					4: Solving with Division (No Type In)
					5: Solving with Division (Type In)
					6: Solving Two-Step Equations
				4: Solving Linear Equations with Similar Terms	1: Solving By Combining Like Variable Terms and a Constant with Integers (No Type In)
					2: Solving by Combining Like Variable Terms and a Constant with Integers (Type In)
					3: Solving by Combining LIke Variable Terms and a Constant with Decimals (No Type In)
					4: Solving by Combining LIke Variable Terms and a Constant with Decimals (Type In)
				6: Problem Solving with Two-Step Equations and Inequalities	2: Solving Problems with Integers
					3: Solving Problems with Decimals and Fractions
				7: The Coordinate Plane and Two-Step Equations	1: Graphs of Equations
					2: Using the Graphs to Solve Equations

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit (MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
NC.7.EE.4b	Construct inequalities to solve problems by reasoning about the quantities. - Fluently solve multi-step inequalities with the variable on one side, including those generated by word problems. - Compare an algebraic solution process for equations and an algebraic solution process for inequalities. - Graph the solution set of the inequality and interpret in context.	Textbook	3: Reasoning Algebraically	2: Two-Step Equations and Inequalities	4: Be Greater Than: Solving Inequalities with Inverse Operations pp. M3-95–M3-116
				3: Multiple Representations of Equations	3: Deep Flight I: Building Inequalities and Equations to Solve Problems pp. M3-155–M3-168
		MATHia Software	3: Reasoning Algebraically	5: Solving Two-Step Linear Inequalities	1: Graphing Inequalities with Rational Numbers
					2: Solving Two-Step Linear Inequalities
NC.7.G.1	Solve problems involving scale drawings of geometric figures by: - Building an understanding that angle measures remain the same and side lengths are proportional. - Using a scale factor to compute actual lengths and areas from a scale drawing. - Creating a scale drawing.	Textbook	1: Thinking Proportionally	4: Proportional Relationships	5: Pound for Pound, Inch for Inch: Scale and Scale Drawings pp. M1-223–M1-240
		MATHia Software	1: Thinking Proportionally	8: Scale Drawings	1: Using Scale Drawings
					2: Using Scale Factor
NC.7.G.2	Understand the characteristics of angles and side lengths that create a unique triangle, more than one triangle or no triangle. Build triangles from three measures of angles and/or sides.	Textbook	5: Constructing and Measuring	1: Angles and Triangles	1: Here's Lookin' at Euclid: Geometric Constructions pp. M5-7–M5-18
					3: Consider Every Side: Constructing Triangles Given Sides pp. M5-39–M5-52
					4: Unique or Not?: Constructing Triangles Given Angles pp. M5-53–M5-66
NC.7.G.4	Understand area and circumference of a circle. - Understand the relationships between the radius, diameter, circumference, and area. - Apply the formulas for area and circumference of a circle to solve problems.	Textbook	1: Thinking Proportionally	1: Circles and Ratio	1: Pi: The Ultimate Ratio: Exploring the Ratio of Circle Circumference to Diameter pp. M1-7–M1-18
					2: That's a Spicy Pizza: Area of Circles pp. M1-19–M1-32
					3: Circular Reasoning: Solving Area and Circumference Problems pp. M1-33–M1-42
		MATHia Software	1: Thinking Proportionally	1: Circles	1: Investigating Circles
					2: Calculating Circumference and Area of Circles

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NC.7.G.5	Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and solve equations for an unknown angle in a figure.	Textbook	5: Constructing and Measuring	1: Angles and Triangles	2: Special Delivery: Special Angle Relationships pp. M5-19–M5-38
		MATHia Software	5: Constructing and Measuring	1: Angle Properties	1: Calculating Angles
					2: Classifying Angles and Determining Unknown Measures
NC.7.G.6	Solve real-world and mathematical problems involving: - Area and perimeter of two-dimensional objects composed of triangles, quadrilaterals, and polygons. - Volume and surface area of pyramids, prisms, or three-dimensional objects composed of cubes, pyramids, and right prisms.	Textbook	1: Thinking Proportionally	4: Proportional Relationships	4: More Ups and Downs: Percent Increase and Percent Decrease pp. M1-209–M1-222
			5: Constructing and Measuring	2: Three-Dimensional Figures	3: Hey, Mister, Got Some Bird Seed?: Volume of Pyramids pp. M5-107–M5-128
					4: The Sound of Surface Area: Surface Area of Pyramids pp. M5-129–M5-142
					5: More Than Four Sides of the Story: Volume and Surface Area of Prisms and Pyramids pp. M5-143–M5-156
		MATHia Software	5: Constructing and Measuring	3: Volume of Prisms and Pyramids	1: Using Volume of Right Prisms
					2: Calculating Volume of Pyramids
					3: Using Volume of Pyramids
NC.7.SP.1	Understand that statistics can be used to gain information about a population by: - Recognizing that generalizations about a population from a sample are valid only if the sample is representative of that population. - Using random sampling to produce representative samples to support valid inferences.	Textbook	4: Analyzing Populations and Probabilities	3: Drawing Inferences	1: We Want to Hear From You!: Collecting Random Samples pp. M4-133-M4-150
					2: Tiles, Gumballs, and Pumpkins: Using Random Samples to Draw Inferences pp. M4-151–M4-168
NS.7.SP.2	Generate multiple random samples (or simulated samples) of the same size to gauge the variation in estimates or predictions, and use this data to draw inferences about a population with an unknown characteristic of interest.	Textbook	4: Analyzing Populations and Probabilities	3: Drawing Inferences	2: Tiles, Gumballs, and Pumpkins: Using Random Samples to Draw Inferences pp. M4-151–M4-168
NC.7.SP.3	Recognize the role of variability when comparing two populations.	Textbook	4: Analyzing Populations and Probabilities	3: Drawing Inferences	3: Spicy or Dark?: Comparing Two Populations pp. M4-169–M4-180
					3: Spicy or Dark?: Comparing Two Populations pp. M4-169–M4-180
		MATHia Software	4: Analyzing Populations and Probabilities	3: Numerical Data Displays Comparisons	1: Comparing Characteristics of Data Displays
					2: Comparing Populations Using Data Displays

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit (MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
NC.7.SP.3a	Calculate the measure of variability of a data set and understand that it describes how the values of the data set vary with a single number. - Understand the mean absolute deviation of a data set is a measure of variability that describes the average distance that points within a data set are from the mean of the data set. - Understand that the range describes the spread of the entire data set. - Understand that the interquartile range describes the spread of the middle 50% of the data.	Textbook	4: Analyzing Populations and Probabilities	3: Drawing Inferences	3: Spicy or Dark?: Comparing Two Populations pp. M4-169–M4-180 4: Finding Your Spot to Live: Using Random Samples from Two Populations to Draw Conclusions pp. M4-181–M4-204
NC.7.SP.3b	Informally assess the difference between two data sets by examining the overlap and separation between the graphical representations of two data sets.	Textbook	4: Analyzing Populations and Probabilities	3: Drawing Inferences	3: Spicy or Dark?: Comparing Two Populations pp. M4-169–M4-180 4: Finding Your Spot to Live: Using Random Samples from Two Populations to Draw Conclusions pp. M4-181–M4-204
NC.7.SP.4	Use measures of center and measures of variability for numerical data from random samples to draw comparative inferences about two populations.	Textbook	4: Analyzing Populations and Probabilities	3: Drawing Inferences	4: Finding Your Spot to Live: Using Random Samples from Two Populations to Draw Conclusions pp. M4-181–M4-204
NC.7.SP.5	Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring.	Textbook	4: Analyzing Populations and Probabilities	1: Introduction to Probability	1: Rolling, Rolling, Rolling...: Defining and Representing Probability pp. M4-7–M4-22
		MATHia Software	4: Analyzing Populations and Probabilities	1: Introduction to Probability	1: Determining Probabilities

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NC.7.SP.6	Collect data to calculate the experimental probability of a chance event, observing its long-run relative frequency. Use this experimental probability to predict the approximate relative frequency.	Textbook	4: Analyzing Populations and Probabilities	1: Introduction to Probability	3: Toss the Cup: Determining Experimental Probability of Simple Events pp. M4-33-M4-46
					4: A Simulating Conversation: Simulating Simple Events pp. M4-47–M4-64
				2: Compound Probability	1: Evens or Odds?: Using Arrays to Organize Outcomes pp. M4-73–M4-88
					4: On a Hot Streak: Simulating Probability of Compound Events pp. M4-113–M4-124
		MATHia Software	4: Analyzing Populations and Probabilities	1: Introduction to Probability	2: Comparing Experimental and Theoretical Probabilities
NC.7.SP.7	Develop a probability model and use it to find probabilities of simple events.	Textbook	4: Analyzing Populations and Probabilities	2: Compound Probability	2: Three Girls and No Boys?: Using Tree Diagrams pp. M4-89–M4–100
NC.7.SP.7a	Develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events.	Textbook	4: Analyzing Populations and Probabilities	1: Introduction to Probability	1: Give the Models a Chance: Probability Models pp. M4-23–M4-32
					4: A Simulating Conversation: Simulating Simple Events pp. M4-47–M4-64
		MATHia Software	4: Analyzing Populations and Probabilities	1: Introduction to Probability	1: Determining Probabilities
NC.7.SP.7b	Develop a probability model (which may not be uniform) by repeatedly performing a chance process and observing frequencies in the data generated.	Textbook	4: Analyzing Populations and Probabilities	1: Introduction to Probability	1: Give the Models a Chance: Probability Models pp. M4-23–M4-32
					3: Toss the Cup: Determining Experimental Probability of Simple Events pp. M4-33-M4-46
				2: Compound Probability	1: Evens or Odds?: Using Arrays to Organize Outcomes pp. M4-73–M4-88
					3: Pet Shop Probability: Determining Compound Probability pp. M4-101–M4-112
		MATHia Software	4: Analyzing Populations and Probabilities	1: Introduction to Probability	2: Comparing Experimental and Theoretical Probabilities

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NC.7.SP.7c	Compare theoretical and experimental probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy.	Textbook	4: Analyzing Populations and Probabilities	1: Introduction to Probability	3: Toss the Cup: Determining Experimental Probability of Simple Events pp. M4-33-M4-46 4: A Simulating Conversation: Simulating Simple Events pp. M4-47–M4-64
NC.7.SP.8	Determine probabilities of compound events using organized lists, tables, tree diagrams, and simulation.	MATHia Software	4: Analyzing Populations and Probabilities	2: Compound Probability	1: Calculating Compound Probabilities
NC.7.SP.8a	Understand that, just as with simple events, the probability of a compound event is the fraction of outcomes in the sample space for which the compound event occurs.	Textbook	4: Analyzing Populations and Probabilities	2: Compound Probability	1: Evens or Odds?: Using Arrays to Organize Outcomes pp. M4-73–M4-88 3: Pet Shop Probability: Determining Compound Probability pp. M4-101–M4-112
NC.7.SP.8b	For an event described in everyday language, identify the outcomes in the sample space which compose the event, when the sample space is represented using organized lists, tables, and tree diagrams.	Textbook	4: Analyzing Populations and Probabilities	2: Compound Probability	1: Evens or Odds?: Using Arrays to Organize Outcomes pp. M4-73–M4-88 2: Three Girls and No Boys?: Using Tree Diagrams pp. M4-89–M4–100 3: Pet Shop Probability: Determining Compound Probability pp. M4-101–M4-112
NC.7.SP.8c	Design and use a simulation to generate frequencies for compound events.	Textbook	4: Analyzing Populations and Probabilities	2: Compound Probability	4: On a Hot Streak: Simulating Probability of Compound Events pp. M4-113–M4-124