

Integrated Algebra



The New York City Department of Education

integrated algebra

PACING	CHAPTER/ LESSON/ UNIT	LESSON AIM FOR TOPIC	OBJECTIVES FOR AIM	SUGGESTED CLASSWORK	SUGGESTED HOMEWORK	NYSED CONTENT STRAND	TAUGHT IN MS (PRE-REQUISITES)
CHAPTER 1: VARIABLES, FUNCTION PATTERNS AND GRAPHS							
Lesson 1-1: <i>Using Variables</i>							
SEMESTER 1: DAY 1	<p>Part 1: Modeling Relationships with Variables</p> <p>Part 2: Modeling Relationships with Equations</p>	How do we use variables to translate verbal phrases into algebraic expressions, equations or inequalities?	<p>Translating English phrases into algebraic expressions.</p> <p>Translating English phrases into algebraic equations.</p>	<p>pp. 4–5: Examples 1, 2 Quick Check 1, 2 p. 6: Exercises 1–2, 9, 27</p> <p>pp. 6–7: Examples 3, 4 Quick Check 3, 4 p. 6: Exercises 17–18, 22 p. 7: GPS 42</p>	<p>p. 6–7: ex. 11, 13, 21, 24, 25, 30, 31, 35 Challenge: p. 8: ex. 43 Test Prep: p. 8: ex. 53 Mixed Review: p. 8: ex. 54, 55 Chapter Test: p. 50: 9</p>	<p>A.1 Translate a quantitative verbal phrase into an algebraic expression.</p> <p>A.3 Distinguish the difference between an algebraic expression and an algebraic equation.</p> <p>A.4 Translate verbal sentences into mathematical equations or inequalities.</p> <p>A.5 Write algebraic equations or inequalities that represent a situation.</p>	<p>5.A.2 Translate simple verbal expressions into algebraic expressions.</p> <p>6.A.1 & 7.A.1 Translate two-step verbal expressions into algebraic expressions.</p> <p>6.A.3 Translate two-step verbal sentences into algebraic equations.</p> <p>8.A.1 Translate verbal sentences into algebraic inequalities.</p> <p>8.A.2 Write verbal expressions that match given mathematical expressions.</p> <p>Note: Distinction between expression and equation is tested in grade 8.</p>
	Lesson 1-2: <i>Exponents and Order of Operations</i>						
SEMESTER 1: DAY 2	<p>Part 1: Simplifying and Evaluating Expressions and Formulas</p>	How do we evaluate algebraic expressions?	<p>Symbols in algebra/order of operations.</p> <p>Evaluating algebraic expressions.</p>	<p>pp. 10–11: Examples 1–3 Quick Check 1–3</p> <p>pp. 12–13: Exercises 1, 2, 7, 8, 13</p>	<p>pp. 12–13: ex. 5, 6, 11, 12, 14, 48, 59, 63 Test Prep: p. 15: ex. 76, 78, 79 <i>(continued)</i></p>	<p>N.6 Evaluate expressions involving factorials, absolute values, and exponential expressions. <i>(continued)</i></p>	<p>6.N.22 Evaluate numerical expressions using order of operations (may include exponents of two and three).</p> <p>6.N.25 Evaluate expressions having exponents where the power is an exponent of one, two, or three. <i>(continued)</i></p>

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SEMESTER 1: DAY 2 (continued)					Mixed Review: p. 15 80, 88, 94 Chapter Test: p. 50: 3, 4	A.5 Write algebraic equations or inequalities that represent a situation.	6.A.2 Use substitution to evaluate algebraic expressions (may include exponents of one, two, and three). 6.A.3 Translate two-step verbal sentences into algebraic equations. 8.A.1 Translate verbal sentences into algebraic inequalities.
SEMESTER 1: DAY 3	Part 2: Simplifying and Evaluating Expressions with Grouping Symbols	How can we simplify and evaluate expressions with parentheses?	Order of operations with parentheses (grouping symbols).	pp. 11–12: Examples 4–7 Quick Check 4–7 p. 13: Exercises: 15, 21, 29, 35	pp. 13: ex. 18, 22, 27, 30, 33, 46, 49, 50, 52, 54 Challenge: pp. 14–15: ex. 71, 73 Test Prep: p. 15: ex. 75 Mixed Review: p. 15: 81, 82, 87, 95 Chapter Test: p. 50: 5, 6	N.6 Evaluate expressions involving factorials, absolute values, and exponential expressions. A.5 Write algebraic equations or inequalities that represent a situation.	6.N.22 Evaluate numerical expressions using order of operations (may include exponents of two and three). 6.N.25 Evaluate expressions having exponents where the power is an exponent of one, two, or three. 6.A.2 Use substitution to evaluate algebraic expressions (may include exponents of one, two, and three). 6.A.3 Translate two-step verbal sentences into algebraic equations. 8.A.1 Translate verbal sentences into algebraic inequalities.

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Lesson 1-3: Exploring Real Numbers							
SEMESTER 1: DAY 4	<p>Part 1: Classifying Numbers</p> <p>Part 2: Comparing Numbers</p>	What number sets make up the set of real numbers?	<p>Classifying numbers according to which set each number belongs.</p> <p>Comparing and ordering real numbers.</p>	<p>pp. 17–19: Examples 1–3 Quick Check 1–3</p> <p>pp. 19–20: Examples 4–5 Quick Check 4–5</p> <p>pp. 20–21: ex. 1–5, 14, 19, 24, 28, 34, 35, 42, 47, 51, 57</p> <p>GPS p. 21: ex. 64</p>	<p>pp. 20–21: ex. 10, 23, 27, 41, 49, 56, 59, 65, 69</p> <p>Challenge: pp. 22: ex. 71, 73, 75</p> <p>Test Prep: p. 22–23: ex. 76, 77, 78, 80</p> <p>Mixed Review: p. 23: ex. 84, 87, 88, 90</p> <p>Checkpoint Quiz 1: p. 23: ex. 4</p>	<p>N.6 Evaluate expressions involving factorials, absolute values, and exponential expressions.</p>	<p>6.N.22 Evaluate numerical expressions using order of operations (may include exponents of two and three).</p> <p>6.N.25 Evaluate expressions having exponents where the power is an exponent of one, two, or three.</p> <p>7.N.11 Simplify expressions using order of operations.</p> <p>Note: Expressions may include absolute value and/or integral exponents greater than 0.</p>

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Lesson 1-4: <i>Patterns and Functions</i>							
SEMESTER 1: DAY 5	Part 1: Writing a Function Rule	How do we write a function rule?	Recognizing equations that describe a functional relationship. Using tables to write function rules.	p. 26: Activity 1 Examples 1–2, Quick check 1, 2	p. 29: ex. 2, 4, 11, 15 Challenge: p. 31: ex. 16 Test Prep: pp. 31–32: ex. 20, 21, 23 Mixed Review: p. 32: ex. 25–28.	A.5 Write algebraic equations or inequalities that represent a situation. G.3 Determine when a relation is a function, by examining ordered pairs and inspecting graphs of relations.	6.A.2 Use substitution to evaluate algebraic expressions (may include exponents of one, two, and three). 6.A.3 Translate two-step verbal sentences into algebraic equations. 8.A.1 Translate verbal sentences into algebraic inequalities. 8.A.15 Understand that numerical information can be represented in multiple ways: arithmetically, algebraically, and graphically.
SEMESTER 1: DAY 6	Part 2: Relationships in a Function	What is the domain and range of a function?	Identifying independent (domain) and dependent (range) variables.	pp. 28–29: Examples 3–4 Quick Check 3–4 p. 29: ex. 5, 6	p. 30: ex. 7, 12, 14 Challenge: p. 31: ex. 17 Test Prep: pp. 31–32: ex. 18, 19, 22, 24 Mixed Review: p. 32: ex. 29, 31, 32 Chapter Test: p. 50: ex. 20	A.5 Write algebraic equations or inequalities that represent a situation. G.3 Determine when a relation is a function, by examining ordered pairs and inspecting graphs of relations.	4.A.5 Analyze a pattern or a whole-number function and state the rule, given a table or an input/output box. 7.A.8 Create algebraic patterns using charts/tables, graphs, equations, and expressions. 7.A.10 Write an equation to represent a function from a table of values. 8.A.17 Define and use correct terminology when referring to function (domain and range). 8.A.18 Determine if a relation is a function.

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Lesson 1-5: <i>Scatter Plots</i>							
SEMESTER 1: DAY 7	Part 1: Analyzing Data Using Scatter Plots	What is a line of best fit in a scatter plot?	Relating two groups of data (bivariate data) in a scatter plot. Investigating trends in scatter plots (positive, negative, etc.) Determining the reasonable line of best fit.	p. 33. Examples 1, 2 Quick Check 1, 2 p. 35: ex. 1 GPS p. 36: ex. 16	pp. 35–36: ex. 2, 4, 6, 8, 12, 14, 16, 17 Challenge: p. 36: ex. 19, 20 Test Prep: p. 36–37: ex. 21 Mixed Review: p. 37: ex. 26, 27 Chapter Test: p. 50: 12, 19	S.7 Create a scatter plot of bivariate data. S.8 Construct manually a reasonable line of best fit for a scatter plot and determine the equation of that line. S.12 Identify the relationship between the independent and dependent variables from a scatter plot.	
Lesson NY-5: <i>Related Data Sets</i>							
SEMESTER 1: DAY 8	Part 1: Predictions Part 2: Relationships between Data Sets	Can we have 2 quantities that correlate but do not have a causal relationship?	To understand the difference between correlation and causation.	pp. 748–749 Examples 1, 2, 3. Quick Check 1, 2, 3 p. 750: Examples 1, 2, 6 p. 749–750 Examples 4, 5 Quick Check 4, 5 p. 750: ex. 9, 10	pp. 750–751: ex. 3, 4, 6, 11, 12, 13–16 Challenge: p. 751 ex. 17 Test Prep: p. 751: ex. 18, 19 Mixed Review: 21, 25, 26, 28	S.13 Understand the difference between correlation and causation. S.14 Identify the variables that may have a correlation but not a causal relationship. S.17 Use a reasonable line of best fit to make a prediction involving interpolation and extrapolation.	

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Lesson NY-1: <i>Analyzing Data and Identifying Bias</i>							
SEMESTER 1: DAY 9	Part 1: Identifying Types of Data	How do we analyze data and identify bias?	To determine if data is univariate or bivariate, qualitative or quantitative, biased or unbiased.	pp. 726–727: ex. 1, 2 Quick check 1, 2	p. 728: ex. 1–4, 7, 9, 10, 13, 14, 15, 17, 20, 22, 25	S.1 Categorize Data as qualitative or quantitative.	
	Part 2: Sampling and Surveys						
					Test Prep: p. 731 29–31	S.3 Determine when collected data or display of data may be biased.	
					Mixed Review: p. 751: ex. 32, 36 42, 44, 46		
Lesson 1-6: <i>Mean, Median, Mode, and Range</i>							
SEMESTER 1: DAY 10	Part 1: Finding the Mean, Median, and Mode	How do we find the mean, median, mode, and range in a set of data?	Understanding measures of central tendency.	pp. 40–42: ex. 1–3 Quick Check 1–3	p. 43–44: ex. 1, 3, 5, 8, 9, 13, 21, 27	S.4 Compare and contrast the appropriateness of different measures of central tendency for a given data set.	6.S.5 Determine the mean, mode and median for a given set of data.
	Activity Lab: Linear Transformations of Measures p. 46						
					Test Prep: p. 45: ex. 32, 33, 34	S.16 Recognize how linear transformations of one-variable data affect the data's mean, median, mode, and range.	7.S.4 Calculate the range for a given set of data.
					Regents Test Prep: p. 51: ex. 1, 2		7.S.5 Select the appropriate measure of central tendency.
					Mixed Review: p. 45: ex. 39		
					Chapter Test: p. 50: ex. 10, 13		
	Part 2: Stem and Leaf Plots (Optional)						

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Lesson NY-2: <i>Quartiles and Box-and-Whisker Plots</i>							
SEMESTER 1: DAY 11	<p>Part 1: Quartiles and Percentiles</p> <p>Part 2: Box-and-Whisker Plots</p>	What is a box-and-whisker plot?	<p>To understand the applications of box-and-whisker plots.</p> <p>To understand how the minimum, maximum, and the 3 quartiles are used to construct a box-and-whisker plot.</p>	<p>pp. 732–733 Examples 1, 2 Quick Check 1, 2</p> <p>pp. 733–755 Examples 3–6 Quick Check 3–6</p>	<p>pp. 736–737: ex. 1, 4, 5, 6, 7, 9, 10, 11, 16, 18, 21</p> <p>Challenge: 27</p> <p>Test Prep: 28–30</p> <p>Mixed Review: 31–34</p>	<p>S.5 Construct a histogram, a cumulative frequency histogram, and a box-and-whisker plot, given a set of data.</p> <p>S.9 Analyze and interpret a frequency distribution table or histogram, a cumulative frequency distribution table or histogram, or a box-and-whisker plot.</p>	
Lesson: Activity Lab: <i>Histograms</i>							
SEMESTER 1: DAY 12	<p>Histograms p. 304</p> <p>Cumulative Frequency Histogram p. 305</p>	What is a histogram and a cumulative frequency histogram?	To analyze and interpret a histogram, a cumulative frequency histogram.	<p>pp. 304–305: Activity 1: ex. 1–4 Activity 2: ex. 5–8</p>	<p>Activity 3: ex. 9–12</p> <p>Regents Test Prep: p. 51: ex. 3–9</p>	<p>S.6 Understand how the 5 statistical summary (minimum, maximum, and the 3 quartiles) is used to construct a box-and-whisker plot.</p> <p>S.11 Find the percentile rank of an item in a data set and identify the point values of first, second, and third quartiles.</p>	<p>6.S.2 Record data in a frequency table.</p> <p>6.S.4 Determine and justify the most appropriate graph to display a given set of data (pictograph, bar graph, line graph, histogram, or circle graph).</p> <p>7.S.6 Read and interpret data represented graphically (pictograph, bar graph, histogram, line graph, double line/bar graphs, or circle graph).</p>

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CHAPTER 2: RATIONAL NUMBERS							
Lesson 2-1: <i>Adding Rational Numbers</i>							
SEMESTER 1: DAY 13	<p>Part 1: Adding Rational Numbers</p> <p>Part 2: Applying Addition</p>	How do we evaluate expressions that involve addition?	<p>To understand the properties of numbers.</p> <p>To evaluate expressions using the property of numbers.</p>	<p>pp. 57–58: Examples 1, 2, 3. Quick Check 1, 2, 3. p. 59–60: ex. 1, 5, 7, 26</p> <p>p. 58: Examples 4, 5. Quick Check 4, 5. p. 60: ex. 36</p> <p>GPS p. 62: ex. 69, 72</p>	<p>pp. 59–61: ex. 4, 13, 17, 24, 29, 31, 37, 47, 54, 62, 65, 73, 77</p> <p>Challenge: 78</p> <p>Test Prep: pp. 62–63: ex. 82, 86</p> <p>Mixed Review: p. 63: 96</p>	<p>N.1 Identify and apply the properties of real numbers (closure, commutative, associative, distributive, identity, and inverse).</p>	<p>6.N.2 Define and identify the commutative and associative properties of addition and multiplication.</p> <p>6.N.4 Define and identify the identity and inverse properties of addition and multiplication.</p> <p>7.N.12 Add, subtract, multiply and divide integers.</p> <p>7.N.13 Add and subtract two integers (with and without the use of a number line).</p>
Lesson 2-2: <i>Subtracting Rational Numbers</i>							
SEMESTER 1: DAY 14	<p>Part 1: Subtracting Rational Numbers</p> <p>Part 2: Applying Subtraction</p>	How do we subtract rational numbers?	To understand and apply subtraction of signed numbers.	<p>pp. 64–65: Examples 1, 2, 3. Quick Check 1, 2, 3. p. 66: ex. 1, 5, 9, 14</p> <p>Chapter Test: p. 112: 1, 11, 16</p> <p>p. 65–66: Examples 4, 5, 6 Quick Check 4, 5, 6 p. 66: ex. 21, 29, 37</p> <p>GPS p. 67: ex. 55</p>	<p>p. 66–67: ex. 4, 8, 15, 19, 32, 37, 43, 48, 54</p> <p>Challenge: 60, 62</p> <p>Test Prep: p. 68: ex. 64, 66, 68</p> <p>Mixed Review: p. 68: ex. 76</p> <p>Chapter Test: p. 112: 2, 7, 13, 16, 22</p>	<p>N.6 Evaluate expressions involving factorials, absolute values, and exponential expressions.</p>	<p>7.N.12 Add, subtract, multiply and divide integers</p> <p>7.N.13 Add and subtract two integers (with and without the use of a number line).</p>

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Lesson 2-3: Multiplying and Dividing Rational Numbers							
SEMESTER 1: DAY 15	<p>Part 1: Multiplying Rational Numbers</p> <p>Part 2: Dividing Rational Numbers</p>	How do we multiply and divide rational numbers?	To understand and apply the rules for multiplication and division of rational numbers.	<p>p. 69. Begin with Activity: Multiplying Integers</p> <p>pp. 69–71: Examples 1–4. Quick Check 1–4</p> <p>GPS p. 75: ex. 83</p>	<p>pp. 73–75: ex. 4, 6, 18, 24, 33–35, 42, 49, 54, 61: b, c, 63, 67, 84, 86</p> <p>Challenge: 88, 90.</p> <p>Test Prep: p. 76: ex. 100</p> <p>Mixed Review: p. 68: ex. 108</p>	<p>N.1 Identify and apply the properties of real numbers (closure, commutative, associative, distributive, identity, and inverse).</p> <p>N.6 Evaluate expressions involving factorials, absolute values, and exponential expressions.</p>	<p>6.N.2 Define and identify the commutative and associative properties of addition and multiplication.</p> <p>6.N.4 Define and identify the identity and inverse properties of addition and multiplication.</p> <p>6.N.5 Define and identify the zero property of multiplication.</p> <p>6.N.13 Define absolute value and determine the absolute value of rational numbers (including positive & negative).</p> <p>7.N.12 Add, subtract, multiply and divide integers.</p>
Lesson 2-4: The Distributive Property							
SEMESTER 1: DAY 16	<p>Part 1: Using the Distributive Property</p> <p>Part 2: Simplifying Algebraic Expressions</p>	How can we use the distributive property to simplify algebraic expressions?	To understand and apply the distributive property.	<p>pp. 79–80: Examples 1, 2. Quick Check 1, 2.</p> <p>p. 82: ex. 5, 15, 16</p> <p>pp. 80–81: Examples 3–6. Quick Check 3–6.</p> <p>p. 82: ex. 27, 35, 43, 45</p> <p>GPS p. 84: ex. 78</p>	<p>pp. 82–84: ex. 13, 17, 18, 24, 30, 37, 39, 46, 55, 58, 61, 66, 67, 72</p> <p>Challenge: 79, 84</p> <p>Test Prep: pp. 84–85: ex. 91</p>	<p>N.1 Identify and apply the properties of real numbers (closure, commutative, associative, distributive, identity, and inverse).</p> <p>A.13 Add, subtract, and multiply monomials and polynomials.</p>	<p>6.N.3 Define and identify the distributive property of multiplication over addition.</p> <p>7.A.2 Add and subtract monomials with exponents of one.</p> <p>7.A.3 Identify a polynomial as an algebraic expression containing one or more terms.</p> <p style="text-align: right;"><i>(continued)</i></p>

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SEMESTER 1: DAY 16 (continued)							<p>8.A.5 Use physical models to perform operations with polynomials.</p> <p>8.A.6 Multiply and divide monomials.</p> <p>8.A.7 Add and subtract polynomials (integer coefficients).</p>
Lesson 2-5: <i>Properties of Numbers</i>							
SEMESTER 1: DAY 17	<p>Part 1: Identifying and Using Properties</p> <p>Part 2: Using Deductive Reasoning</p>	What are the properties of rational numbers?	<p>To understand and use the properties of rational numbers.</p> <p>To reason logically with given facts to a conclusion.</p>	<p>pp. 86–87: Examples 1, 2 Quick Check 1, 2</p> <p>p. 88–89: ex. 1–5, 25, 26</p> <p>pp. 88: Example 3 Quick Check 3</p> <p>p. 89: ex. 17, 18.</p> <p>GPS p. 89: ex. 31</p> <p>Use p. 91 for ex. 38</p>	<p>pp. 88–90: ex. 6, 9, 15, 19, 24, 27, 30, 33, 37, 39, 40, 44</p> <p>Challenge: 49, 52</p> <p>Test Prep: p. 90: ex. 55, 56</p> <p>Mixed Review: p. 90: ex. 75</p>	<p>N.1 Identify and apply the properties of real numbers (closure, commutative, associative, distributive, identity, and inverse).</p>	<p>6.N.2 Define and identify the commutative and associative properties of addition and multiplication.</p> <p>6.N.3 Define and identify the distributive property of multiplication over addition.</p> <p>6.N.4 Define and identify the identity and inverse properties of addition and multiplication.</p> <p>6.N.5 Define and identify the zero property of multiplication.</p>

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Lesson 2-6: Theoretical and Experimental Probability							
SEMESTER 1: DAY 18	Activity Lab: Understanding Probability p. 92 Part 2: Experimental Probability	How do we find the number of favorable outcomes in an experiment?	To be able to set up a sample space. Determine the number of elements in a sample space.	Activity Lab p. 92 Activities 1, 2, p. 95: Examples 4, 5 Quick Check 4, 5 p 96: ex. 21–23	p. 96–97: 24, 28, 33, 35, 47, 50, 56 Challenge: ex. 61 Test Prep: p. 98–99: ex. 65, 66 Mixed Review: p. 99: ex. 73 Checkpoint Quiz 2: ex. 1–6.	S.19 Determine the number of elements in a sample space and determine the number of favorable events.	5.S.5 List the possible outcomes for a single-event experiment. 5.S.7 Create a sample space and determine the probability of a single event, given a simple experiment (e.g., rolling a number cube). 6.S.9 List possible outcomes for compound events. 6.S.11 Determine the number of possible outcomes for a compound event by using the fundamental counting and use this to determine the probabilities of events when the outcomes have equal probability.
SEMESTER 1: DAY 19	Part 1: Theoretical Probability	How do you find the probability of an event occurring?	To understand the difference between theoretical and experimental probability. To understand the probability of an event and its complement.	pp. 93–94: Examples 1, 2, 3 Quick Check 1, 2, 3 p. 96: ex. 1, 2, 10, 11, 15, 16 GPS p. 97: ex. 42	p. 96–97: ex. 6, 15, 20, 29, 32, 34, 36, 38, 40, 46 Challenge: ex. 59 Test Prep: p. 98: ex. 62–64. Mixed Review: p. 99: ex. 70	S.20 Calculate the probability of an event and its complement. S.21 Determine empirical probabilities based on specific sample data.	6.N.26 Estimate a percent of quantity (0% to 100%). 7.S.8 Interpret data to provide the basis for predictions and to establish experimental probabilities.

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Lesson 2-7: Probability of Compound Events							
SEMESTER 1: DAY 20	<p>Activity Lab: Conduct a Simulation p. 100</p> <p>Part 1: Finding the Probability of Independent Events.</p> <p>Activity Lab: Mutually Exclusive Events p. 107</p>	<p>How can we determine empirical probabilities based on specific data?</p> <p>How do we find the probability of independent events?</p>	<p>To determine probabilities based on specific data.</p> <p>To understand the probability of independent events.</p>	<p>p. 100 Activity Lab: Conducting a Simulation p. 100: ex. 1a, 3a</p> <p>p. 102: Examples 1 and 2. Quick Check 1, 2</p> <p>p. 107: Activity Lab: Mutually Exclusive Events Examples 1, 2</p>	<p>p. 104: ex. 1, 5, 11, 14; 23, 27, 31, 44</p> <p>Challenge: 45</p> <p>p 107: ex. 1, 2</p> <p>Test Prep: p. 106: ex. 49, 51</p> <p>Regents Test Prep: p. 113: ex. 1–4, 6, 9</p>	<p>S.21 Determine empirical probabilities based on specific sample data.</p> <p>S.23 Calculate the probability of: a series of independent events; a series of dependent events; 2 mutually exclusive events; 2 events that are not mutually exclusive.</p>	<p>7.S.8 Interpret data to provide the basis for predictions and to establish experimental probabilities.</p> <p>6.S.9 List possible outcomes for compound events.</p>
SEMESTER 1: DAY 21	<p>Part 2: Finding the Probability of Dependent Events.</p> <p>Activity Lab: Conditional Probability pp. 660–661</p>	<p>How do we find the probability of dependent events?</p>	<p>To understand the probability of dependent events.</p> <p>To understand conditional probability.</p>	<p>p. 103: ex. 3, 4. Quick Check 3, 4. GPS p. 105: ex. 33</p> <p>p. 660 Activity 1, 2</p>	<p>p. 104: ex. 16, 18, 20, 21, 30; 37, 39</p> <p>Challenge: 46, 47</p> <p>p. 661: ex. 4–6, 9–12</p> <p>Regents Test Prep: p. 113: ex. 10–12, 15, 16, 20</p>	<p>S.18 Know the definition of conditional probability and use it to solve for probabilities in finite sample spaces.</p> <p>S.23 Calculate the probability of: a series of independent events; a series of dependent events; 2 mutually exclusive events; 2 events that are not mutually exclusive.</p>	<p>6.S.10 Determine the probability of dependent events.</p>

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CHAPTER 3: SOLVING EQUATIONS							
Lesson 3-1: <i>Solving Two-Step Equations</i>							
SEMESTER 1: DAY 22	<p>Part 1: Solving Two-Step Equations</p> <p>Part 2: Using Deductive Reasoning</p>	How do we solve a two-step equation and use deductive reasoning to justify the steps?	<p>To understand and solve two-step equations.</p> <p>Using deductive reasoning to justify steps in solving equations.</p>	<p>p. 120–121: Examples 1, 2, 3 Quick Check 1, 2, 3.</p> <p>p. 121: ex. 1, 2, 23</p> <p>p. 122: Example 4. Quick Check 4</p> <p>p. 121: ex. 24</p> <p>GPS p. 123: ex. 45</p>	<p>p. 122: ex. 6, 12, 20, 21, 24, 25, 31, 32, 34, 35, 39, 43, 47, 51, 57, 60</p> <p>Challenge: p. 124: ex. 65, 66</p> <p>Test Prep: p. 124: ex. 70, 71</p>	<p>A.5 Write algebraic equations or inequalities that represent a situation.</p> <p>A.6 Analyze and solve verbal problems whose solution requires solving a linear equation or linear inequality in one variable.</p> <p>A.25 Solve equations involving fractional expressions.</p>	<p>6.A.4 Solve and explain two-step equations involving whole numbers using inverse operations.</p> <p>7.A.5 Solve one-step inequalities (positive coefficients only). (See 7.G.10.)</p> <p>8.A.2 Write verbal expressions that match given mathematical expressions.</p>
Lesson 3-2: <i>Solving Multi-Step Equations</i>							
SEMESTER 1: DAY 23	<p>Part 1: Using the Distributive Property to Combine Like Terms</p> <p>Part 2: Using the Distributive Property to Solve Equations</p>	How can we use the distributive property to combine terms and solve equations?	To understand and apply the distributive property to solve equations.	<p>pp. 126–127: Examples 1, 2. Quick Check 1, 2.</p> <p>pp. 127–128: Examples 3, 4, 5 Quick Check 3, 4, 5</p> <p>p. 129: ex. 12, 13, 21, 22, 30, 31</p> <p>GPS p. 130: ex. 58</p>	<p>pp. 129–131: ex. 9, 10, 14, 20, 27 35, 41, 47, 53, 59, 65.</p> <p>Challenge: p. 131: ex. 66</p> <p>Test Prep: pp. 131–132: ex. 69, 73, 74</p> <p>Mixed Review: p. 132: ex. 75–96.</p>	<p>N.1 Identify and apply the properties of real numbers (commutative, associative, distributive, identity and inverse).</p> <p>A.5 Write algebraic equations or inequalities that represent a situation.</p> <p>A.22 Solve all types of linear equations in one variable.</p>	<p>6.A.4 Solve and explain two-step equations involving whole numbers using inverse operations.</p> <p>7.A.1 Translate two-step verbal expressions into algebraic expressions.</p> <p>7.A.4 Solve multi-step equations by combining like terms, using the distributive property, or moving variables to one side of the equation.</p>

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PACING	CHAPTER/ LESSON/ UNIT	LESSON AIM FOR TOPIC	OBJECTIVES FOR AIM	SUGGESTED CLASSWORK	SUGGESTED HOMEWORK	NYSED CONTENT STRAND	TAUGHT IN MS (PRE-REQUISITES)
Lesson 3-3: <i>Equations with Variables on Both Sides</i>							
SEMESTER 1: DAY 24	<p>Part 1: Solving Equations with Variables on Both Sides</p> <p>Part 2: Special Cases: Identities and No Solutions</p>	How do we solve equations with variables on both sides?	To understand how to solve equations with variables on both sides.	<p>p. 134–136: Examples 1, 2, 3 Quick Check 1–3</p> <p>p. 136: Examples 4 Quick Check 4</p> <p>p. 137: ex. 18, 19</p>	<p>pp. 136–137: ex. 1, 3, 5, 10, 11, 16; 17, 23, 27, 32, 38.</p> <p>Challenge: p. 138: ex. 41, 44.</p> <p>Test Prep: p. 139: ex. 50, 53</p> <p>Mixed Review: ex. 63, 68</p> <p>GPS p. 138: ex. 40</p>	<p>A.5 Write algebraic equations or inequalities that represent a situation.</p> <p>A.6 Analyze and solve verbal problems whose solution requires solving a linear equation or linear inequality in one variable.</p> <p>A.22 Solve all types of linear equations in one variable.</p>	<p>5.A.4 Solve simple one-step equations using basic whole-number facts.</p> <p>5.A.5 Solve and explain simple one-step equations using inverse operations involving whole numbers.</p> <p>6.A.3 Translate two-step verbal sentences into algebraic equations.</p> <p>6.A.4 Solve and explain two-step equations involving whole numbers using inverse operations.</p> <p>7.A.1 Translate two-step verbal expressions into algebraic expressions.</p> <p>7.A.4 Solve multi-step equations by combining like terms, using the distributive property, or moving variables to one side of the equation.</p> <p>8.A.2 Write verbal expressions that match given mathematical expressions.</p> <p>8.A.15 Understand that numerical information can be represented in multiple ways: arithmetically, algebraically and graphically.</p>

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Lesson 3-4: <i>Ratio and Proportion</i>							
SEMESTER 1: DAY 25	<p>Part 1: Ratio and Rates</p> <p>Review: Using and Transforming Formulas pp. 140–141</p>	What is a ratio and how do we find the unit rate?	<p>To understand and apply ratio in solving problems.</p> <p>To find unit rates and to convert rates.</p> <p>To transform formulas for particular variables.</p>	<p>p. 142–143: Examples 1, 2, 3 Quick Check 1–3</p> <p>p. 145: ex. 1–4</p> <p>p. 140: Review Example 1–4.</p>	<p>pp. 145–146: ex. 8, 9, 15, 32, 37, 40, 43, 54,</p> <p>p. 140: ex. 1, 2.</p> <p>Test Prep: p. 148: ex. 62–64</p> <p>Mixed Review: p. 148: ex. 65, 71</p>	<p>A.26 Solve algebraic proportions in one variable which result in linear or quadratic equations.</p> <p>M.1 Calculate rates using appropriate units.</p> <p>M.2 Solve problems involving conversions within systems, given the relationship between the units.</p>	<p>6.N.6 Understand the concept of rate.</p> <p>6.M.3 Identify equivalent customary units of capacity (cups to pints, pints to quarts, and quarts to gallons).</p> <p>6.M.4 Identify metric units of capacity (liter and milliliter).</p> <p>6.M.5 Identify equivalent metric units of capacity (milliliter to liter and liter to milliliter).</p> <p>7.A.6 Evaluate formulas for given input values (surface area, rate, and density problems).</p> <p>7.M.4 Calculate unit price using proportions.</p> <p>7.M.5 Compare unit prices.</p> <p>7.M.7 Convert money between different currencies with the use of an exchange rate table and a calculator.</p> <p>8.M.1 Solve equations/proportions to convert to equivalent measurements within metric and customary measurement systems.</p> <p>Note: Also allow Fahrenheit to Celsius and vice versa.</p>

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SEMESTER 1: DAY 26	Part 2: Solving Proportions	What is a proportion?	To understand and solve algebraic proportions.	p. 144–145: Examples 4, 5, 6 Quick Check 4, 5, 6 p. 146: ex. 16–22 even GPS ex. 56	pp. 147–148: ex. 21, 23, 25, 28, 31, 49–51, 57. Challenge: p. 148: ex. 58 Mixed Review: p. 148: ex. 72–74	A.26 Solve algebraic proportions in one variable which result in linear or quadratic equations. M.1 Calculate rates using appropriate units. Requires solving a linear equation or linear inequality in one variable. M.2 Solve problems involving conversions within systems, given the relationship between the units.	6.A.5 Solve simple proportions within context. 6.N.7 Express equivalent ratios as a proportion. 6.N.8 Distinguish the difference between rate and ratio. 6.N.9 Solve proportions using equivalent fractions. 6.N.10 Verify the proportionality using the product of the means equals the product of the extremes.

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Lesson 3-5: Proportions and Similar Figures							
SEMESTER 1: DAY 27	Part 1: Similar Figures Activity Lab: Scale Factor, Perimeter, Area, and Volume pp. 156–157.	How can we use proportions to find missing sides in similar triangles?	To understand and solve similarity problems. To Investigate scale factors and ratios of perimeters, areas, and volume.	p. 150: Example 1. Quick Check 1; p. 152: ex. 1–6 (Example 2 is not in curriculum) p. 156: Activity 1 Examples 1–4.	p. 152: ex. 22, 24, 30, 32, 33 Challenge: p. 154: ex. 37. p. 156–157: ex. 5, 6 Test Prep: p. 154–155: ex. 38, 39, 41. Mixed Review: p. 155: ex. 46, 47. p. 157: Activity 2 Examples 7–10.	A.6 Analyze and solve verbal problems whose solution requires solving a linear equation or linear inequality in one variable. A.25 Solve equations involving fractional expressions. A.26 Solve algebraic proportions in one variable which result in linear or quadratic equations. G.5 Investigate and generalize how changing the coefficients of a function affects its graph.	6.A.5 Solve simple proportions within context. 6.N.9 Solve proportions using equivalent fractions. 6.G.1 Calculate the length of corresponding sides of similar triangles, using proportional reasoning. 7.A.4 Solve multi-step equations by combining like terms, using the distributive property, or moving variables to one side of the equation. 8.G.11 Draw the image of a figure under a dilation.
SEM 1: DAY 28	Part 2: Indirect Measurement and Scale Drawings	How can we use proportions to find distances?	To apply proportions using scale drawings to find distances.	p. 151 Examples 3, 4. Quick Check 3, 4; p. 151: ex. 10–12 GPS p. 153: ex. 23	p. 152: ex. 13, 14, 17, 18, 25, 26 Checkpoint Quiz 1: ex. 1–10.		7.M.1 Calculate distance using a map scale.
Lesson 3-6: Equations and Problem Solving							
SEMESTER 1: DAY 29	Part 1: Defining Variables Part 2: Distance-Rate-Time Problems	How do we solve problems containing two unknowns with one equation?	To define one variable in terms of another. To translate, set-up and solve distance-rate-time problems.	p. 158–159: Examples 1, 2 Quick Check 1, 2. p. 162: ex. 1, 5. <i>(continued)</i>	p. 164: ex. 2, 4, 6, 8, 9, 11, 12, 13, 14, 15, 18, 25, 26 Challenge: p. 165: ex. 28 Test Prep: p. 165: ex. 31, 34, 35	A.5 Write algebraic equations or inequalities that represent a situation. <i>(continued)</i>	7.A.6 Evaluate formulas for given input values (surface area, rate, and density problems). 8.A.2 Write verbal expressions that match given mathematical expressions. <i>(continued)</i>

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SEMESTER 1: DAY 29 (continued)				p. 160–162: Examples 3–5 Quick Check 3–5 GPS p 164: ex. 22		A.6 Analyze and solve verbal problems whose solution requires solving a linear equation or linear inequality in one variable.	8.A.15 Understand that numerical information can be represented in multiple ways: arithmetically, algebraically, and graphically. Note: See Day 23.
Lesson 3–7: <i>Percent of Change</i>							
SEMESTER 1: DAY 30	Part 1: Percent of Change Review: Proportions and Percents p. 166–167.	How do we find percent of increase/decrease and solve problems using proportions?	To understand and apply the ratio of percent of change. To apply the percent proportion to solve percent problems.	p. 168–169: Examples 1, 2 Quick Check 1, 2 p. 171: ex. 1–4, 13 p. 166–167: Examples 1, 2, 3 p. 167: ex. 1, 3, 5 GPS p. 172: ex. 50	p. 171: ex. 6, 12, 14, 30, 35, 40, 43 p. 167: ex. 6, 8, 12 Challenge: p. 173: ex. 55 Test Prep: p. 173: ex. 56, 59 Mixed Review: 60, 65	N.5 Solve algebraic problems arising from situations that involve fractions, decimals, percents.	8.N.4 Apply percents to: tax, percent increase/decrease, simple interest, sale price, commission, interest rates, and gratuities.
SEMESTER 1: DAY 31	Part 2: Percent Error	How do we find the Greatest Possible Error (GPE) and the percent of error in a measurement?	To understand and apply the percent of error in calculating area and volume.	p. 169–170: Examples 3–6. Quick Check 3–6 p. 171: ex. 15, 16, 19, 20 25	p. 171: ex. 17, 18, 21, 24, 26, 29, 41, 45, 51, 52 Challenge: p. 173: ex. 53 Test Prep: p. 173: ex. 57, 58 Mixed Review: 61, 64	M.3 Calculate the relative error in measuring square and cubic units, when there is an error in the linear measure.	7.M.10 Identify the relationship between relative error and magnitude when dealing with large numbers (e.g., money, population).

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Lesson 3-8 <i>Finding and Estimating Square Roots</i>							
SEMESTER 1: DAY 32	<p>Part 1: Finding Square Roots</p> <p>Part 2: Estimating and Using Square Roots</p>	How do we find the square root of a number?	To simplify square root expressions.	<p>pp. 176–177: Examples 1, 2 Quick Check 1, 2</p> <p>p. 178: ex. 1–4, 13, 14</p> <p>pp. 177–178: Examples 3–5. Quick Check 3–5</p> <p>p. 178: Examples 17, 21, 22</p> <p>GPS p. 179: ex. 52</p>	<p>pp. 178–179: ex. 5, 12, 16, 17, 21, 25, 28, 36, 42, 45, 48</p> <p>Challenge: p. 179: ex. 53–55</p> <p>Mixed Review: p. 180: ex. 64, 66</p> <p>Test Prep: p. 180 p. 58, 61</p> <p>Checkpoint Quiz 2: p. 180: ex. 2–10 even</p>	<p>N.2 Simplify radical terms (no variable in the radicand).</p>	<p>7.N.15 Recognize and state the value of the square root of a perfect square (up to 225).</p> <p>7.N.16 Determine the square root of non-perfect squares using a calculator.</p> <p>7.N.18 Identify the two consecutive whole numbers between which the square root of a non-perfect square whole number less than 225 lies (with and without the use of a number line).</p>
Lesson 3-9: <i>The Pythagorean Theorem</i>							
SEMESTER 1: DAY 33	<p>Part 1: Solving Problems Using the Pythagorean Theorem</p> <p>Part 2: Identifying Right Triangles</p>	What is the Pythagorean Theorem and how is it used?	To apply the Pythagorean Theorem, and its converse, to find missing sides of a right triangle.	<p>pp. 181–182: Examples 1, 2 Quick Check 1, 2</p> <p>p. 184: ex. 1, 5, 9, 11</p> <p>p. 183: Examples 3, 4 Quick Check 3, 4</p> <p>p. 184: ex. 16, 17, 22</p> <p>GPS p. 184: ex. 40.</p>	<p>pp 184–186: ex. 7, 12, 18, 21, 23, 28, 31, 36, 39, 41.</p> <p>Challenge: p. 186: ex. 56, 57</p> <p>Test Prep: p. 187: ex. 62, 65, 66</p> <p>Mixed Review: 67, 72, 75, 79</p>	<p>A.45 Determine the measure of a third side of a right triangle using the Pythagorean Theorem, given the lengths of any 2 sides.</p>	<p>7.G.5 Identify the right angle, hypotenuse, and legs of a right triangle.</p> <p>7.G.6 Explore the relationship between the lengths of the three sides of a right triangle to develop the Pythagorean Theorem.</p> <p>Note: Tested in grade 8.</p>

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CHAPTER 4: INEQUALITIES AND THEIR GRAPHS							
Lesson 4-1: <i>Identifying Solutions of Inequalities</i>							
SEMESTER 1: DAY 34	<p>Part 1: Identifying Solutions of Inequalities</p> <p>Part 2: Graphing and Writing Inequalities in One Variable</p>	How do we find the solution to an inequality and plot it on a number line?	<p>To find the solution to an inequality in one variable.</p> <p>To plot inequalities on a number line.</p>	<p>pp. 200–201: Examples 1, 2 Quick Check 1, 2 p. 202: ex. 1–4, 9–11</p> <p>pp. 201–202: Examples 3, 4, 5. Quick Check 3–5</p> <p>pp. 202–203: ex. 15, 19, 27, 33</p> <p>GPS p. 204: ex. 65</p>	<p>pp. 202–204: ex. 12, 18, 26, 32, 36, 49, 50, 58, 60, 66</p> <p>Challenge: p. 204: ex. 70–73</p> <p>Test Prep: p. 205: ex. 74–79</p> <p>Mixed Review: p. 205: ex. 80–94</p>	<p>A.4 Translate verbal sentences into mathematical equations or inequalities.</p> <p>A.21 Determine whether a given value is a solution to a given linear equation or linear inequality in one variable.</p> <p>G.6 Graph linear inequalities.</p>	<p>8.G.19 Graph the solution set of an inequality on a number line.</p> <p>8.A.2 Write verbal expressions that match given mathematical expressions.</p>
Lesson 4-2: <i>Solving Inequalities Using Addition and Subtraction</i>							
SEMESTER 1: DAY 35	<p>Part 1: Using Addition to Solve Inequalities.</p> <p>Part 2: Using Subtraction to Solve Inequalities</p>	How do we solve inequalities using addition and subtraction?	<p>Using the addition property to solve inequalities.</p> <p>Using the subtraction property to solve inequalities.</p>	<p>pp. 206–207: Examples 1, 2. Quick Check 1, 2 p. 208: ex. 1–7</p> <p>pp. 207–208: ex. 3, 4, Quick Check 3, 4. p. 209: ex. 20–22, 39</p> <p>GPS. 209: ex. 62</p>	<p>pp. 208–210: ex. 11, 17, 27, 35, 42, 46, 51, 57, 64, 72</p> <p>Challenge: p. 210: ex. 74, 75</p> <p>Test Prep: pp. 210–211: ex. 79–84.</p> <p>Mixed Review: p. 211: ex. 85–97</p>	<p>A.6 Analyze and solve verbal problems whose solution requires solving a linear equation or linear inequality in one variable.</p> <p>A.24 Solve linear inequalities in one variable.</p>	<p>8.A.13 Solve multi-step inequalities and graph the solution set on a number line.</p>

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Lesson 4-3: Solving Inequalities Using Multiplication and Division							
SEMESTER 1: DAY 36	<p>Part 1: Using Multiplication to Solve Inequalities</p> <p>Part 2: Using Division to Solve Inequalities</p>	How do we solve inequalities using multiplication and division?	Using multiplication and division to solve inequalities.	<p>pp. 212–214: Examples 1, 2. Quick Check 1, 2. p. 215: ex. 1–8.</p> <p>pp. 214–215: ex. 3, 4, Quick Check 3, 4.</p> <p>p. 215: ex. 17–20, 29.</p> <p>GPS. 216: ex. 76</p>	<p>pp. 215–216: ex. 9, 12, 23, 30, 35, 40 47, 52, 56, 67, 75</p> <p>Challenge: p. 216: ex. 78, 81, 83</p> <p>Test Prep: p. 216–217 p. 84–89</p> <p>Mixed Review: p. 217: 90–106</p> <p>Checkpoint Quiz 1: p. 217: ex. 1–10</p>	<p>A.6 Analyze and solve verbal problems whose solution requires solving a linear equation or linear inequality in one variable.</p> <p>A.24 Solve linear inequalities in one variable.</p>	8.A.13 Solve multi-step inequalities and graph the solution set on a number line.

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Lesson 4-4: Solving Multi-Step Inequalities							
SEMESTER 1: DAY 37	Part 1: Solving Inequalities with Variables on One Side	How do we solve inequalities with variables on one side?	Solving inequalities with one variable.	pp. 219–221: Examples 1, 2, 3. Quick Check 1–3 p. 222: ex. 1–3, 10, 12–15 GPS p. 223: ex. 43	pp. 222–224: ex. 6, 9, 11, 16, 21, 42, 45, 50, 70, 71 Challenge: p. 224: ex. 77. Test Prep: p. 225: ex. 80, 82, 83 Mixed Review: p. 225: ex. 85–90	A.5 Write algebraic equations or inequalities that represent a situation. A.6 Analyze and solve verbal problems whose solution requires solving a linear equation or linear inequality in one variable. A.24 Solve linear inequalities in one variable.	7.A.5 Solve one-step inequalities (positive coefficients only). 8.A.1 Translate verbal sentences into algebraic inequalities. 8.A.13 Solve multi-step inequalities and graph the solution set on a number line. 8.A.14 Solve linear inequalities by combining like terms, using the distributive property, or moving variables to one side of the inequality (include multiplication or division of inequalities by a negative number).
SEMESTER 1: DAY 38	Part 2: Solving Inequalities with Variables on Both Sides.	How do we solve inequalities with variables on both sides?	Solving inequalities with one variable.	p. 221: Examples 4, 5. Quick Check 4, 5. p. 222: ex. 22–24, 31–33. Use GPS on p. 226 for ex. 72 on p. 224	pp. 222: ex. 25, 30, 34, 40, 49, 55, 58, 61, 67, 73. Challenge: p. 224: ex. 74 pp. 222: ex. 25–30, 34–40, 41, 52, 55, 58, 61, 64, 67, 72, 73. Test Prep: p. 225: ex. 81, 84 Mixed Review: p. 225 ex. 91–98	A.5 Write algebraic equations or inequalities that represent a situation. A.6 Analyze and solve verbal problems whose solution requires solving a linear equation or linear inequality in one variable. A.24 Solve linear inequalities in one variable.	See also: Days 33–35 8.G.19, 8.A.2, 8.A.13, and 8.A.14.

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Lesson 4-5: <i>Compound Inequalities</i>							
SEMESTER 1: DAY 39	<p>Part 1: Solving Compound Inequalities Containing <i>And</i></p> <p>Part 2: Solving Compound Inequalities Containing <i>Or</i></p>	How do we solve compound inequalities containing <i>And</i> or <i>Or</i> ?	Solving and graphing compound inequalities.	<p>pp. 227–228: Examples 1–3</p> <p>Quick Check 1–3</p> <p>p. 229–230: ex. 1–2, 5–7</p> <p>p. 230: Examples 4, 5</p> <p>Quick Check 4, 5</p> <p>p. 230: ex. 17, 18, 21, 22</p> <p>GPS p. 231: ex. 46</p>	<p>pp. 229–231: ex. 4, 9, 15, 19, 23, 27, 32, 37, 41, 47.</p> <p>Challenge: p. 231: ex. 51, 54</p> <p>Test Prep: p. 232: ex. 56–58</p> <p>Mixed Review: p. 232: ex. 59–64.</p>	<p>A.5 Write algebraic equations or inequalities that represent a situation.</p> <p>A.6 Analyze and solve verbal problems whose solution requires solving a linear equation or linear inequality in one variable.</p> <p>A.24 Solve linear inequalities in one variable.</p>	8.G.19 Graph the solution set of an inequality on a number line.
Lesson NY-3: <i>Working With Sets</i>							
SEMESTER 1: DAY 40	<p>Part 1: Working with Sets</p> <p>Part 2: Interval Notation</p>	How do we list sets using roster, set builder and interval notation?	<p>To use roster, set builder and interval notation.</p> <p>To find the complement of sets.</p>	<p>pp. 738–739: Examples 1, 2, 3</p> <p>Quick Check 1–3</p> <p>p. 741: ex. 1, 2, 5, 7, 9, 12</p> <p>p. 740: Example 4</p> <p>Quick Check 4</p> <p>p. 741: ex. 14, 15</p>	<p>p. 741–742: ex. 4, 7, 8, 13, 17, 22, 25, 28, 31, 35, 39</p> <p>Challenge: p. 742: ex. 40, 41</p> <p>Test Prep: p. 742: ex. 42–44</p> <p>Mixed Review: p. 742: ex. 47, 49, 52, 53</p>	<p>A.29 Use set-builder notation and/or interval notation to illustrate the elements of a set, given the elements in order form.</p> <p>A.30 Find the complement of a subset of a given set, within a given universe.</p>	6.S.3 Construct Venn diagrams to sort data.

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Lesson NY-4: <i>Union and Intersection of Sets</i>							
SEMESTER 1: DAY 41	<p>Part 1: Operations on Sets</p> <p>Part 2: Solving Problems with Venn Diagrams</p>	How do we find the union and intersection of two or more sets?	To find the union and intersection of sets.	<p>pp. 743–744: Examples 1, 2 Quick Check 1, 2 p. 746: 4, 6, 9, 12</p> <p>p. 745: Examples 3, 4 Quick Check 3, 4 p. 746: ex. 14, 17</p>	<p>p. 746–747: ex. 5, 11, 20, 22, 23–25, 26, 27</p> <p>Challenge: p. 747: 29, 32</p> <p>Test Prep: 34–36</p> <p>Mixed Review: p. 747 37–40, 43</p>	A.31 Find the intersection of 2 sets or the union of 2 sets.	6.S.3 Construct Venn diagrams to sort data.
Lesson 4-6: <i>Absolute Value Equations and Inequalities</i>							
SEMESTER 1: DAY 42	<p>Part 1: Solving Absolute Value Equations</p> <p>Part 2: Solving Absolute Value Inequalities</p>	How do we solve absolute equations and inequalities?	To solve and graph absolute equations and inequalities.	<p>pp. 235–236: Examples 1, 2. Quick Check 1, 2. p. 237–238: ex. 1, 2, 13</p> <p>pp. 236–237: Examples 1, 2. Quick Check 1, 2. p. 238: ex. 22, 23, 35 GPS p. 238: ex. 57</p>	<p>pp. 237–238: ex. 5, 11, 14, 20, 26, 32, 39, 48, 57, 64</p> <p>Challenge: p. 239: ex. 72, 74, 77</p> <p>Test Prep: pp. 239–240: ex. 81–86</p> <p>Mixed Review: p 240: ex. 87–98</p>	G.4 Identify and graph linear, quadratic (parabolic), absolute value, and exponential functions.	<p>Beginning in grade 6:</p> <p>6.N.13 Define absolute value and determine the absolute value of rational numbers (including positive and negative).</p>

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CHAPTER 5: GRAPHS AND FUNCTIONS							
Lesson 5-1: <i>Relating Graphs to Events (Optional)</i>							
Lesson 5-2: <i>Relations and Functions</i>							
SEMESTER 1: DAY 43	Part 1: Identifying Relations and Functions Part 2: Evaluating Functions	When is a relation a function?	To determine when a relation is a function.	pp. 257–258: Examples 1, 2, Quick Check 1, 2. p. 259: ex. 1, 2, 5, 6 pp. 258–259: Examples 3, 4, Quick Check 3, 4 p. 259: ex. 9, 10, 17, 18 GPS p. 261: ex. 42	pp. 259–261: ex. 7, 11, 16, 21, 27, 32, 35, 37, 39, 41 Challenge: p. 261: ex. 43, 47, 50 Test Prep: p. 261: ex. 49–52 Mixed Review: p. 262: ex. 54–63 Checkpoint Quiz 1: p. 262: ex. 1–10	G.3 Determine when a relation is a function, by examining ordered pairs and inspecting graphs of relations.	8.A.16 Find a set of ordered pairs to satisfy a given linear numerical pattern (expressed algebraically), then plot the ordered pairs and draw the line. 8.A.17 Define and use correct terminology when referring to function (domain and range). 8.A.18 Determine if a relation is a function.

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PACING	CHAPTER/ LESSON/ UNIT	LESSON AIM FOR TOPIC	OBJECTIVES FOR AIM	SUGGESTED CLASSWORK	SUGGESTED HOMEWORK	NYSED CONTENT STRAND	TAUGHT IN MS (PRE-REQUISITES)
Lesson 5-3: Functions, Rules, Tables, and Graphs							
SEMESTER 1: DAY 44	Part 1: Modeling Functions	How do we identify and graph functions?	Identifying and graphing functions.	pp. 263–267: Examples 1–4 Quick Check 1–4. p 266: ex. 1, 2, 10, 12, 15 GPS p. 267: ex. 38	pp. 266–267: ex. 3, 6, 9, 11, 13, 17, 23, 27, 31, 39 Challenge: p. 267: ex. 41 Test Prep: p. 268: ex. 42–47 Mixed Review: p. 268: ex. 48–62	G.4 Identify and graph linear quadratic (parabolic), absolute value, and exponential functions.	7.A.7 Draw the graphic representation of a pattern from an equation or from a table of data. 8.A.4 Create a graph given a description or an expression for a situation involving a linear or nonlinear relationship. 8.G.15 Graph a line using a table of values. 8.G.20 Distinguish between linear and nonlinear equations $ax^2 + bx + c$; $a = 1$ (only graphically).
Lesson 5-4: Writing a Function Rule							
SEMESTER 1: DAY 45	Part 1: Writing Function Rules	How do we write a function rule?	To understand and write function rules.	pp. 270–271: Examples 1–3 Quick Check 1–3 p 272: ex. 1, 2, 3, 10, 11, 17 GPS p. 273: ex. 24	pp. 272–274: ex. 4, 8, 12, 14, 18, 20, 22, 26, 28, 30 Challenge: p. 274: ex. 32, 33 Test Prep: p. 275: ex. 37–40 Mixed Review: p. 275: ex. 41–53	A.5 Write algebraic equations or inequalities that represent a situation.	7.A.10 Write an equation to represent a function from a table of values. 8.A.19 Interpret multiple representations using equation, table of values, and graph.

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PACING	CHAPTER/ LESSON/ UNIT	LESSON AIM FOR TOPIC	OBJECTIVES FOR AIM	SUGGESTED CLASSWORK	SUGGESTED HOMEWORK	NYSED CONTENT STRAND	TAUGHT IN MS (PRE-REQUISITES)
Lesson 5-5: <i>Direct Variation</i>							
SEMESTER 1: DAY 46	Part 1: Writing the Equation of a Direct Variation	What is a direct variation?	To understand and write equations of direct variation.	pp. 277–279: Examples 1–3 Quick Check 1–3 p 280: ex. 1, 2, 3, 10, 11, 22. Use GPS on p. 276 for ex. 30 on p. 274	pp. 280–281: ex. 4, 9, 12, 16, 18, 20, 22, 28, 32, 38. Challenge: p. 282: ex. 48, 50 Test Prep: p. 282: ex. 55–60 Mixed Review: p. 283: ex. 61–73	N.5 Solve algebraic problems arising from situations that involve fractions, decimals, percents, and proportionality/direct variation. A.5 Write algebraic equations or inequalities that represent a situation.	Note: <i>Impact Mathematics</i> Course 2 and 3, Grade 7 Chapter 5, Lesson 5.1, Investigation 3, Grade 8 and Chapter 1. 6.A.5 Solve simple proportions within context. 8.A.19 Interpret multiple representations using equation, table of values, and graph.
SEMESTER 1: DAY 47	Part 2: Proportions and Equations of Direct Variation	What is a constant of variation?	Writing equations of direct variation.	pp. 279–280: Examples 4, 5 Quick Check 4, 5 p 281: ex. 24, 27 GPS p. 281: ex. 45	p. 281: ex. 25, 26, 28, 45, 46, 47. Challenge: p. 282: ex. 49, 52 Checkpoint Quiz 2: p. 283: ex. 1–10 Regents Test Prep: p. 303: ex. 1–8	N.5 Solve algebraic problems arising from situations that involve fractions, decimals, percents, and proportionality/direct variation. A.5 Write algebraic equations or inequalities that represent a situation.	Note: <i>Impact Mathematics</i> Course 2 and 3, Grade 7 Chapter 5, Lesson 5.1, Investigation 3, Grade 8 and Chapter 1. 6.A.5 Solve simple proportions within context. 8.A.19 Interpret multiple representations using equation, table of values, and graph.
Lesson 5-6: <i>Inverse Variation (Optional)</i>							
Lesson 5-7: <i>Describing Number Patterns (Optional)</i>							

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PACING	CHAPTER/ LESSON/ UNIT	LESSON AIM FOR TOPIC	OBJECTIVES FOR AIM	SUGGESTED CLASSWORK	SUGGESTED HOMEWORK	NYSED CONTENT STRAND	TAUGHT IN MS (PRE-REQUISITES)
CHAPTER 6: LINEAR EQUATIONS AND THEIR GRAPHS							
Lesson 6-1: <i>Rate of Change and Slope</i>							
SEMESTER 1: DAY 48	<p>Part 1: Finding Rates of Change</p> <p>Part 2: Finding Slope</p>	How can we find rates of change and the slope of a line?	To understand slope as a rate of change and to find the slope of a line given two points on the line.	<p>pp. 308–309: Examples 1, 2</p> <p>Quick Check 1, 2</p> <p>p 312: ex. 1, 2</p> <p>pp. 310–311</p> <p>Examples 3–5</p> <p>Quick Check 3–5</p> <p>p. 313: ex. 7, 10, 22</p> <p>GPS p. 314: ex. 42</p>	<p>pp. 312–314: ex. 4, 9, 15, 24, 27, 32, 40, 46, 54, 60</p> <p>Challenge: p. 315: ex. 63–71</p> <p>Test Prep: p. 315: ex. 72–75</p> <p>Mixed Review: p. 315: ex. 76–87</p>	<p>A.32 Explain slope as a rate of change between dependent and independent variables.</p> <p>A.33 Determine the slope of a line, given the coordinates of two points on the line.</p>	8.G.13 Determine the slope of a line from a graph and explain the meaning of slope as a constant rate of change.

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Lesson 6-2: <i>Slope Intercept Form</i>							
SEMESTER 1: DAY 49	Part 1: Writing Linear Equations	How can we write the equation of a line given its slope and y- intercept?	To write the equation of a line given a point on the line and its slope.	pp. 317–318: Examples 1–3 Quick Check 1–3 p 320: ex. 1, 2, 10, 11, 22, 23	pp. 320–321: ex. 5, 8, 12, 15, 18, 24, 41, 47, 60, 68, 71 Challenge: p. 322: ex. 75–77 Test Prep: p. 323: ex. 80, 81 Mixed Review: p. 323: ex. 84, 85	A.34 Write the equation of a line, given its slope and the coordinates of a point on the line. A.35 Write the equation of a line, given the coordinates of 2 points on the line. A.37 Determine the slope of a line, given its equation in any form.	8.G.16 Determine the equation of a line given the slope and the y- intercept. 8.G.17 Graph a line from an equation in slope-intercept form ($y = mx + b$).
SEMESTER 1: DAY 50	Part 2: Graphing Linear Equations	How can we graph the equation of a line given its slope and y- intercept?	To graph linear functions.	p. 319: Examples 4, 5 Quick Check 4, 5 p. 320: ex. 28, 29, 40 GPS p. 321: ex. 57	pp. 320–322: ex. 30, 34, 38, 50, 52, 54, 64, 72–74 Challenge: p. 322: ex. 78, 79 Test Prep: p. 323: ex. 82, 83 Mixed Review: p. 323: ex. 86–88	A.34 Write the equation of a line, given its slope and the coordinates of a point on the line. A.35 Write the equation of a line, given the coordinates of 2 points on the line. A.37 Determine the slope of a line, given its equation in any form.	8.G.16 Determine the equation of a line given the slope and the y- intercept. 8.G.17 Graph a line from an equation in slope-intercept form ($y = mx + b$).

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Lesson 6-3: Applying Linear Functions							
SEMESTER 1: DAY 51	<p>Part 1: Interpreting Linear Graphs</p> <p>Activity Lab: Investigating $y = mx + b$ p. 316</p>	How does changing the coefficients of a function affect its graph?	<p>To identify and graph linear functions.</p> <p>To investigate how changing the coefficients of a function will affect its graph.</p>	<p>pp. 324–325: Examples 1, 2. Quick Check 1, 2</p> <p>pp. 325–326: ex. 1, 4 p. 316: ex. 1, 2, 3 GPS p. 326: ex. 7</p>	<p>pp. 325–327: ex. 2, 5, 9, 10, 12 p. 316: ex. 4–8</p> <p>Challenge: p. 327: ex. 13, 14</p> <p>Test Prep: p. 328: ex. 15–18</p> <p>Mixed Review: p. 328: ex. 19–32</p>	<p>A.5 Write algebraic equations or inequalities that represent a situation.</p> <p>G.4 Identify and graph linear, quadratic (parabolic), absolute value, and exponential functions.</p> <p>G.5 Identify and generalize how changing the coefficients of a function affects its graph.</p>	<p>8.A.19 Interpret multiple representations using equation, table of values, and graph.</p> <p>8.G.14 Determine the y-intercept of a line from a graph and be able to explain the y-intercept.</p> <p>8.G.16 Determine the equation of a line given the slope and the y-intercept.</p>

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Lesson 6-4: <i>Standard Form</i>							
SEMESTER 1: DAY 52	Part 1: Graphing Equations Using Intercepts	How do we graph an equation using intercepts?	To find x - and y -intercepts and graph linear equations.	pp. 330–331: Examples 1–3 Quick Check 1–3 pp. 333: ex. 1, 2, 10, 13, 19, 23 Use GPS on p. 329 for ex. 9 on p. 327	pp. 333: ex. 4, 6, 8, 11, 12, 14, 17, 20–22, 24, 38, 41, 44, 49, 52, 56 Challenge: p. 334: ex. 64 Test Prep: p. 335: ex. 67, 69 Mixed Review: p. 335: ex. 70–78	A.36 Write the equation of a line parallel to the x - or y - axis. G.4 Identify and graph linear, quadratic (parabolic), absolute value, and exponential functions.	8.G.14 Determine the y - intercept of a line from a graph and be able to explain the y - intercept.
SEMESTER 1: DAY 53	Part 2: Writing Equations in Standard Form	How do we write an equation in standard form?	To find x - and y - intercepts and write equations in standard form.	pp. 332: Examples 4, 5 Quick Check 4, 5 pp. 333: ex. 27, 28, 36 GPS p. 334: ex. 48	pp. 333: ex. 29, 30, 37, 47, 48, 58–62 Challenge: p. 334: ex. 63, 65 Test Prep: p. 335: ex. 66, 68 Checkpoint Quiz 1: p. 335: ex. 1–10	A.36 Write the equation of a line parallel to the x - or y - axis. G.4 Identify and graph linear, quadratic (parabolic), absolute value, and exponential functions.	8.G.14 Determine the y - intercept of a line from a graph and be able to explain the y - intercept.

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Lesson 6-5: Point-Slope Form and Writing Linear Equations							
SEMESTER 1: DAY 54	Part 1: Using Point-Slope Form	How do we graph and write linear equations using point-slope form?	Write equations of lines using point-slope form.	pp. 336–337: Examples 1–3. Quick Check 1–3 pp. 339: ex. 1, 2, 10, 19	pp. 339–340: ex. 9, 12, 15, 20, 27, 36, 41, 47, 53, 58 Challenge: p. 341: ex. 61, 62 Test Prep: p. 341: ex. 65, 66, 67 Mixed Review: p. 341: ex. 70–75	A.34 Write the equation of a line given its slope and the coordinates of a point on the line. A.35 Write the equation of a line, given the coordinates of 2 points on the line. G.4 Identify and graph linear, quadratic (parabolic), absolute value, and exponential function.	7.A.10 Write an equation to represent a function from a table of values. 8.G.16 Determine the equation of a line given the slope and the y - intercept. 8.A.4 Create a graph given a description or an expression for a situation involving a linear or nonlinear relationship.
SEMESTER 1: DAY 55	Part 2: Writing Linear Equations Using Data	How can we write a linear equation using data?	To write linear equations using data.	pp. 338–339: Examples 4, 5 Quick Check 4, 5 pp. 340: ex. 31, 34 GPS p. 340: ex. 55	pp. 339–340: ex. 23, 29, 32, 33, 34, 40, 46, 52, 54, 57, 59, 60 Challenge: p. 341: ex. 63, 64 Test Prep: p. 341: ex. 68, 69 Mixed Review: p. 341: ex. 76–81	A.34 Write the equation of a line given its slope and the coordinates of a point on the line. A.35 Write the equation of a line, given the coordinates of 2 points on the line. G.4 Identify and graph linear, quadratic (parabolic), absolute value, and exponential function.	7.A.10 Write an equation to represent a function from a table of values. 8.G.16 Determine the equation of a line given the slope and the y - intercept. 8.A.4 Create a graph given a description or an expression for a situation involving a linear or nonlinear relationship.

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Lesson 6-6: <i>Parallel and Perpendicular Lines</i>							
SEMESTER 1: DAY 56	Part 1: Parallel Lines	What are parallel lines?	To determine if lines are parallel.	pp. 343–344: Examples 1, 2. Quick Check 1, 2. pp. 346: ex. 1, 4, 7, 13	pp. 346–348: ex. 8, 11, 14, 17, 41, 45, 52, 55, 58, 60 Challenge: p. 348: ex. 66, 69 Test Prep: p. 349: ex. 72, 73, 75 Mixed Review: p. 349: ex. 77–82	A.34 Write the equation of a line given its slope and the coordinates of a point on the line. A.37 Determine the slope of a line given its equation in a form. A.38 Determine if two lines are parallel, given their equations in a form.	7.A.4 Solve multi-step equations by combining like terms, using the distributive property, or moving variables to one side of the equation. 8.R.11 Use math to show and understand mathematical phenomena (i.e., use tables, graphs, and equations to show a pattern underlying a function). 8.G.16 Determine the equation of a line given the slope and the y - intercept.
SEMESTER 1: DAY 57	Part 2: Perpendicular Lines	What are perpendicular lines?	To determine if lines are perpendicular.	pp. 344–345: Examples 3, 4. Quick Check 3, 4 pp. 346: ex. 19, 22, 31 GPS p. 347: ex. 47–49	pp. 346–348: ex. 23, 26, 30, 36, 43, 46, 52, 55, 58, 63 Challenge: p. 348: ex. 64, 65, 68 Test Prep: p. 349: ex. 71, 74, 76 Mixed Review: p. 349: ex. 83–89	A.34 Write the equation of a line given its slope and the coordinates of a point on the line. A.37 Determine the slope of a line given its equation in a form. A.38 Determine if two lines are parallel, given their equations in a form.	7.A.4 Solve multi-step equations by combining like terms, using the distributive property, or moving variables to one side of the equation. 8.R.11 Use math to show and understand mathematical phenomena (i.e., use tables, graphs, and equations to show a pattern underlying a function). 8.G.16 Determine the equation of a line given the slope and the y - intercept.

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Lesson 6-7: Scatter Plots and Equations of Lines							
SEMESTER 1: DAY 58	<p>Part 1: Writing an Equation for a Trend Line</p> <p>Part 2: Writing an Equation for a Line of Best Fit.</p>	<p>How can we use an equation of a trend line to make predictions?</p> <p>What is the line of best fit?</p>	<p>Creating a scatter plot; constructing a reasonable line of best fit and determining the equation of that line.</p>	<p>pp. 350–352: Example 1 Quick Check 1</p> <p>pp. 352: ex. 1, 2, 5</p> <p>pp. 351–353: Example 2 Quick Check 2 pp. 353: ex. 7, 8, 14</p> <p>GPS p. 354: ex. 12</p>	<p>pp. 352–355: ex. 3, 4, 9–11, 13, 14, 15, 16, 19</p> <p>Challenge: p. 355: ex. 20</p> <p>Test Prep: p. 355: ex. 21–23</p> <p>Mixed Review: p. 356: ex. 24–35</p> <p>Checkpoint Quiz 2: p. 356 ex. 1–10</p>	<p>S.7 Create a scatter plot of bivariate data.</p> <p>S.8 Construct manually a reasonable line of best fit for a scatter plot and determine the equation of that line.</p> <p>S.17 Use a reasonable line of best fit to make a prediction involving interpolation or extrapolation.</p>	
Lesson 6-8: Graphing Absolute Value Equations							
SEMESTER 1: DAY 59	<p>Part 1: Translating Graphs of Absolute Value Equations</p>	<p>How do we translate and write absolute value equations?</p>	<p>To identify, graph, and translate absolute value equations.</p>	<p>pp. 359–361: Examples 1–5 Quick Check 1–5</p> <p>pp. 361: ex. 1–3, 4, 10, 16, 22</p> <p>GPS p. 362: ex. 32–35</p>	<p>pp. 361–355: ex. 8, 11, 14, 17, 20, 23, 26, 28, 37, 38</p> <p>Challenge: p. 362–363: ex. 42, 43</p> <p>Test Prep: p. 363: ex. 44–48</p> <p>Mixed Review: p. 363: ex. 49–50</p>	<p>G.4 Identify and graph linear, quadratic (parabolic), absolute value, and exponential functions.</p>	
SEMESTER 1: DAY 60	<p>Lesson: Activity Lab Exploring Absolute Value Functions p. 358</p>	<p>How can we graph absolute functions using a graphing calculator?</p>	<p>To use a graphing calculator to explore absolute value functions.</p>	<p>p. 358: Activity 1–4</p>	<p>p. 358: ex. 3, 4, 5</p> <p>Regents Test Prep: p. 369</p> <p>Test Prep: ex. 1–17</p>	<p>G.4 Identify and graph linear, quadratic (parabolic), absolute value, and exponential functions.</p>	

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CHAPTER 7: SYSTEMS OF EQUATIONS AND INEQUALITIES (NOTE: SEMESTER 2 BEGINS HERE)							
Lesson 7-1: <i>Solving Systems by Graphing</i>							
SEMESTER 2: DAY 1	Part 1: Solving Systems by Graphing	How do we solve a system of equations by graphing?	To understand how to solve systems of equations graphically.	pp. 374–375: Examples 1, 2, 3 Quick Check 1, 2, 3 p. 377: ex. 1, 2, 5, 6, 13 GPS p. 377: ex. 25	pp. 377–379 Practice by example: ex. 3, 4, 8, 12, 14 Apply your skills: ex. 23, 35 Challenge: ex. 40, 41 Test Prep: ex. 43, 44 Mixed Review: ex. 47–49, 50–51	A.7 Analyze and solve verbal problems whose solution requires solving systems of linear equations of 2 variables. G.7 Graph and solve systems of linear equations and inequalities with rational coefficients in 2 variables.	8.A.2 Write verbal expressions that match given mathematical expressions. 8.G.18 Solve systems of equations graphically (only linear, integral solutions, $y = mx + b$ format, no vertical/horizontal lines).
SEMESTER 2: DAY 2	Part 2: Analyzing Special Types of Systems Activity Lab: Solving Systems Using Tables and Graphs: p. 380	What are special types of systems?	To analyze special types of systems. To understand how to solve a system using a graphing calculator.	pp. 377–378: Examples 4, 5. Quick Check 4, 5 pp. 377–378: ex. 15, 19 p. 380. Activity 1, 2	pp. 377–380 Practice by example: ex. 17, 18 Apply your skills: ex. 21, 22, 26, 27, 28 Challenge: ex. 40 Test Prep: ex. 42 Mixed Review: ex. 53–55 Activity Practice: ex. 5, 8	A.7 Analyze and solve verbal problems whose solution requires solving systems of linear equations of 2 variables. G.7 Graph and solve systems of linear equations and inequalities with rational coefficients in 2 variables.	8.A.2 Write verbal expressions that match given mathematical expressions. 8.G.18 Solve systems of equations graphically (only linear, integral solutions, $y = mx + b$ format, no vertical/horizontal lines).

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Lesson 7-2: Solving Systems Using Substitution							
SEMESTER 2: DAY 3	Part 1: Solving Systems Using Substitution	How do we solve a system algebraically?	To understand how to solve a system by using substitution.	pp. 382–383: Examples 1, 2, 3 Quick Check 1, 2, 3 p. 384: ex. 1–4, 5, 11, 17, 19 GPS p. 384: ex. 24	pp. 384–386 Practice by example: ex. 7, 10, 13, 16 Apply your skills: ex. 21, 23, 33, 35, 38 Challenge: ex. 40, 41 Test Prep: ex. 45 Mixed review: ex. 50, 52, 54	A.7 Analyze and solve verbal problems whose solution requires solving systems of linear equations of 2 variables. A.10 Solve systems of 2 linear equations in 2 variables algebraically.	7.A.4 Solve multi-step equations by combining like terms, using the distributive property, or moving variables to one side of the equation.

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Lesson 7-3: Solving Systems Using Elimination							
SEMESTER 2: DAY 4	Part 1: Adding or Subtracting to Solve Systems	How can we solve a system using addition and subtraction?	To understand how to use addition or subtraction to solve a system.	pp. 387–388: Examples 1, 2 Quick Check 1, 2 p. 390–391: ex. 1, 2, 4, 5, 7	pp. 390–393 Practice by example: ex. 3, 6, 8 Apply your skills: ex. 39, 41 Challenge: ex. 44 Test Prep: ex. 47, 48 Mixed Review: ex. 51–55, 57, 58	A.7 Analyze and solve verbal problems whose solution requires solving systems of linear equations of 2 variables. G.7 Graph and solve systems of linear equations and inequalities with rational coefficients in 2 variables.	7.A.4 Solve multi-step equations by combining like terms, using the distributive property, or moving variables to one side of the equation.
SEMESTER 2: DAY 5	Part 2: Multiplying first to Solve Systems	How can we solve a system by multiplying first?	To understand how to use multiplication to solve a system.	pp. 388–390: Examples 3, 5 Quick Check 3, 5 p. 391: ex. 9, 10, 15, 17 GPS p. 392: ex. 30	pp. 390–393 Practice by example: ex. 12, 14, 16, 18, 21 Apply your skills: ex. 25, 28, 31, 33, 37 Challenge: ex. 42, 43 Mixed Review: ex. 56, 59, 60	A.7 Analyze and solve verbal problems whose solution requires solving systems of linear equations of 2 variables. G.7 Graph and solve systems of linear equations and inequalities with rational coefficients in 2 variables.	7.A.4 Solve multi-step equations by combining like terms, using the distributive property, or moving variables to one side of the equation.

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Lesson 7-4: Applications of Linear Systems							
SEMESTER 2: DAY 6	Part 1: Writing Systems of Linear Equations	How can we set up a system of equations from a verbal problem?	To understand how to write a system of equations from a verbal problem.	pp. 396–399: Examples 1, 2, 3 Quick Check 1, 2, 3 p. 399–400: ex. 1, 5, 7 GPS p.401: ex. 21	pp. 399–402 Practice by example: ex. 2, 3, 6, 8 Apply your skills: ex. 9, 13, 16, 20 Challenge: ex. 24 Test Prep: ex. 25–27 Mixed review: ex. 29, 35, 41	A.7 Analyze and solve verbal problems whose solution requires solving systems of linear equations of 2 variables. G.7 Graph and solve systems of linear equations and inequalities with rational coefficients in 2 variables.	8.PS.6 Represent problem situations verbally, numerically, algebraically, and graphically. 8.A.2 Write verbal expressions that match given mathematical expressions.

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Lesson 7-5: <i>Linear Inequalities</i>							
SEMESTER 2: DAY 7	Part 1: Graphing Linear Inequalities	How do we graph linear inequalities?	To understand how to graph linear inequalities.	pp. 404–405: Activity 1, Examples 1, 2 Quick Check 1, 2 p. 407: ex. 1, 2, 3, 7, 11, 19	pp. 407–410 Practice by example: ex. 4–6, 8–10, 18, 22 Apply your skills: ex. 28, 32, 39 Challenge: ex. 49 Test Prep: ex. 50–53 Mixed Review: ex. 55, 57–60, 63–65	A.6 Analyze and solve verbal problems whose solution requires solving a linear equation or linear inequality in one variable. A.21 Determine whether a given value is a solution to a given linear equation or linear inequality in one variable. G.6 Graph linear inequalities.	8.PS.6 Represent problem situations verbally, numerically, algebraically, and graphically. 8.A.1 Translate verbal sentences into algebraic inequalities. 8.G.19 Graph the solution set of an inequality on a number line. 8.A.14 Solve linear inequalities by combining like terms, using the distributive property, or moving variables to one side of the inequality (include multiplication or division of inequalities by a negative number).
SEMESTER 2: DAY 8	Part 2: Modeling Real-World Situations	How do we model real-world situations with linear inequalities?	To determine solution sets in linear inequalities.	pp. 406: Examples 3. Quick Check 3 p. 407: ex. 23 p. 408 GPS: ex. 37 Apply your skills: ex. 44	pp. 407–410 Practice by example: ex. 9, 11, 15, 24 Apply your skills: ex. 29, 34–36, 45 Challenge: ex. 46 Mixed Review: ex. 56, 66–70		

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Lesson 7-6: <i>Systems of Linear Inequalities</i>							
SEMESTER 2: DAY 9	Part 1: Solving Systems of Linear Inequalities by Graphing	How do we solve systems of linear inequalities by graphing?	To understand and graph systems of linear inequalities.	pp. 411–413: Examples 1, 2 Quick Check 1, 2 p. 415: ex. 1–3, 4, 16, 17	pp. 414–416 Practice by example: ex. 5, 8, 15, 18, 19 Apply your skills: ex. 25, 26, 32, 36 Challenge: ex. 46 Test Prep: ex. 49, 50 Mixed Review: ex. 53, 56, 58, 61	A.40 Determine whether a given point is in the solution set of a system of inequalities. G.7 Graph and solve systems of linear equations and inequalities with rational coefficients in 2 variables.	Note: Solving a system of equations is a post-March performance indicator and does not include systems of inequalities.
SEMESTER 2: DAY 10	Part 2: Writing and Using Systems of Linear Inequalities.	How do we write system of linear inequalities from verbal problems?	To understand how to write a system of linear inequalities from verbal problems.	pp. 413–414: Examples 3, 4 Quick Check 3, 4 p. 415: ex. 20, 22 GPS: p. 416: ex. 35	pp. 415–418 Practice by example: ex. 21 Apply your skills: ex. 24, 27, 28, 33, 43 Challenge: ex. 47, 48 Mixed Review: ex. 60, 62, 64, 69 Regents Test Prep: p. 425: ex. 1–5	A.40 Determine whether a given point is in the solution set of a system of inequalities. G.7 Graph and solve systems of linear equations and inequalities with rational coefficients in 2 variables.	Note: Solving a system of equations is a post-March performance indicator and does not include systems of inequalities.

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PACING	CHAPTER/ LESSON/ UNIT	LESSON AIM FOR TOPIC	OBJECTIVES FOR AIM	SUGGESTED CLASSWORK	SUGGESTED HOMEWORK	NYSED CONTENT STRAND	TAUGHT IN MS (PRE-REQUISITES)
CHAPTER 8: EXPONENTS AND EXPONENTIAL FUNCTIONS							
Lesson 8-1: <i>Zero and Negative Exponents</i>							
SEMESTER 2: DAY 11	<p>Part 1: Zero and Negative Exponents</p> <p>Part 2: Evaluating Exponential Expressions</p>	How do we evaluate exponential exponents with zero and negative exponents?	<p>To simplify expression with zero and negative exponents.</p> <p>To evaluate exponential expressions.</p>	<p>pp. 430–432: Activity 1, Examples 2–4; Quick Check 2–4</p> <p>p. 433: ex. 1, 2, 13, 17, 18, 33, 34, 39</p>	<p>pp. 433–435</p> <p>Practice by example: ex. 11, 20, 31</p> <p>Apply your skills: ex. 49, 50, 55, 62, 72, 74</p> <p>Challenge: ex. 82, 85, 87</p> <p>Test Prep: ex 88–93</p> <p>Mixed Review: ex. 94, 98</p>	N.6 Evaluate expressions involving factorials, absolute values, and exponential expressions.	<p>6.A.2 Use substitution to evaluate algebraic expressions (may include exponents of one, two, and three).</p> <p>7.N.14 Develop a conceptual understanding of negative and zero exponents with a base of ten and relate to fractions and decimals (e.g., $10^{-2} = .01 = 1/100$).</p> <p>8.N.2 Evaluate expressions with integral exponents.</p>

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Lesson 8-2: <i>Scientific Notation</i>							
SEMESTER 2: DAY 12	Part 1: Writing Numbers in Scientific and Standard Notation	How do we write and numbers in scientific notation?	To write numbers in scientific and standard notation.	pp. 436–437: Examples 1, 2, 3 Quick Check 1–3 pp. 438–439: ex. 1, 2, 7, 8, 15, 16, 17, 19	pp. 438–440 Practice by example: ex. 3, 6, 10, 14, 18, 22 Apply your skills: ex. 34, 36, 38, 39, 40 Challenge: ex. 48 Test Prep: ex. 49 Mixed Review: ex. 55, 57, 59	N.4 Understand and use scientific notation to compute products and quotients.	7.N.5 Write numbers in scientific notation. 7.N.6 Translate numbers from scientific notation into standard form. 7.N.7 Compare numbers written in scientific notation.
SEMESTER 2: DAY 13	Part 2: Using Scientific Notation	How do we use numbers in scientific notation?	To use scientific notation.	pp. 437–438: Examples 4, 5, 6 Quick Check 4–6 p. 439: ex. 23, 24, 28, 29 GPS p. 439: ex. 43	pp. 438–440 Practice by example: ex. 11, 20, 25, 31 Apply your skills: ex. 44, 45 Challenge: ex. 46 Test Prep: ex. 50, 51 Mixed Review: ex. 54, 56, 58	N.4 Understand and use scientific notation to compute products and quotients.	7.N.5 Write numbers in scientific notation. 7.N.6 Translate numbers from scientific notation into standard form. 7.N.7 Compare numbers written in scientific notation.

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PACING	CHAPTER/ LESSON/ UNIT	LESSON AIM FOR TOPIC	OBJECTIVES FOR AIM	SUGGESTED CLASSWORK	SUGGESTED HOMEWORK	NYSED CONTENT STRAND	TAUGHT IN MS (PRE-REQUISITES)
Lesson 8-3: Multiplication Properties of Exponents							
SEMESTER 2: DAY 14	Part 1: Multiplying Part 2: Working With Scientific Notation	How do we multiply powers and numbers in scientific notation?	To multiply powers. To work with scientific notation.	pp. 441–443: Activity 1 Examples 1–4 Quick Check 1–4 p. 443: ex. 1, 2, 7, 8, 22, 28, 48 GPS p. 445: ex. 56	pp. 443–445 Practice by example: ex. 6, 15, 21, 27 Apply your skills: ex. 39, 40, 41, 47, 53, 55 Challenge: ex. 71, 72 Test Prep: ex. 79–81 Mixed review: ex. 95–97	N.4 Understand and use scientific notation to compute products and quotients. A.12 Multiply and divide monomial expressions with a common base, using the properties of exponents.	8.N.1 Develop and apply the laws of exponents for multiplication and division. 8.A.6 Multiply and divide monomials.
Lesson 8-4: More Multiplication Properties of Exponents							
SEMESTER 2: DAY 15	Part 1: Raising a Power to a Power Part 2: Raising a Product to a Power	How do we raise powers to a power and raise products to powers?	To raise a power to a power. To raise a product to a power.	pp. 448–449: Activity 1 Examples 2–5 Quick Check 2–5 p. 449–450: ex. 2, 8, 15, 18, 25 GPS p. 450: ex. 51	pp. 449–451 Practice by example: ex. 7, 19, 23, 30 Apply your skills: ex. 39, 49, 53, 60, 61 Challenge: ex. 62, 64 Test Prep: ex. 69–72 Mixed Review: ex. 75, 82	N.4 Understand and use scientific notation to compute products and quotients. A.12 Multiply and divide monomial expressions with a common base, using the properties of exponents.	8.N.1 Develop and apply the laws of exponents for multiplication and division. 8.A.6 Multiply and divide monomials.

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Lesson 8-5: <i>Division Properties of Exponents</i>							
SEMESTER 2: DAY 16	<p>Part 1: Dividing Powers with the Same Base.</p> <p>Part 2: Raising a Quotient to a Power.</p>	How do we divide powers of the same base and raise quotients to powers?	<p>To divide powers with the same base.</p> <p>To raise a quotient to a power.</p>	<p>pp. 453–455: Examples 1–4 Quick Check 1–4</p> <p>p. 456: ex. 1, 5, 13, 21, 29, 37, 48</p> <p>GPS p. 457: ex. 50</p>	<p>pp. 456–459</p> <p>Practice by example: ex. 12, 18, 27, 35</p> <p>Apply your skills: ex. 38, 44, 52, 60, 61, 63</p> <p>Challenge: ex. 79, 81</p> <p>Test Prep: ex. 84–89</p> <p>Mixed Review: ex. 100, 103</p>	<p>N.4 Understand and use scientific notation to compute products and quotients.</p> <p>A.12 Multiply and divide monomial expressions with a common base, using the properties of exponents.</p>	<p>8.N.1 Develop and apply the laws of exponents for multiplication and division.</p> <p>8.A.6 Multiply and divide monomials.</p>
	Lesson 8-6: <i>Geometric Sequences</i> Activity Lab: Modeling Data p. 466 PS.3 (Optional)						

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Lesson 8-7: Exponential Functions							
SEMESTER 2: DAY 17	<p>Part 1: Evaluating Exponential Functions</p> <p>Part 2: Graphing Exponential Functions</p>	How do we evaluate and graph exponential functions?	<p>To evaluate exponential functions.</p> <p>Graphing exponential functions.</p>	<p>p. 466: Activity lab 1 pp. 468–470: Examples 1–4 Quick Check 1–4</p> <p>pp. 470–471: ex. 1, 3, 9, 12, 13, 23, 25, 30</p> <p>GPS p. 471: ex. 34</p>	<p>pp. 470–473</p> <p>Practice by example: ex. 6, 8, 10, 14, 16</p> <p>Apply your skills: ex. 28, 32, 33, 35</p> <p>Challenge: ex. 44, 47</p> <p>Test Prep: ex. 51–54</p> <p>Mixed Review: ex. 56, 65</p>	<p>N.6 Evaluate expressions involving factorials, absolute values, and exponential expressions.</p> <p>G.4 Identify and graph linear, quadratic (parabolic), absolute value, and exponential functions.</p>	<p>8.G.20 Distinguish between linear and nonlinear equations $ax^2 + bx + c$; $a = 1$ (only graphically).</p> <p>8.G.21 Recognize the characteristics of quadratics in tables, graphs.</p> <p>8.A.4 Create a graph given a description or an expression for a situation involving a linear or nonlinear relationship.</p>
SEMESTER 2: DAY 18	<p>Activity Lab: Fitting Exponential Curves to Data</p>	How do we use a graphing calculator to fit curves to data?	To fit curves to data.	<p>p. 474: Example</p> <p>p. 474: ex. 1, 2</p>	<p>pp. 471–474</p> <p>Practice by example: ex. 21</p> <p>Apply your skills: ex. 24, 31, 43</p> <p>Challenge: ex. 46, 49</p> <p>Mixed Review: ex. 57, 64</p> <p>Activity exercise p. 474: ex. 3</p>	<p>N.6 Evaluate expressions involving factorials, absolute values, and exponential expressions.</p> <p>G.4 Identify and graph linear, quadratic (parabolic), absolute value, and exponential functions.</p>	<p>8.G.20 Distinguish between linear and nonlinear equations $ax^2 + bx + c$; $a = 1$ (only graphically).</p> <p>8.G.21 Recognize the characteristics of quadratics in tables, graphs.</p> <p>8.A.4 Create a graph given a description or an expression for a situation involving a linear or nonlinear relationship.</p>

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Lesson 8-8: Exponential Growth and Decay							
SEMESTER 2: DAY 19	Part 1: Exponential Growth	How do we model exponential growth?	To model exponential growth.	pp. 475–477 Examples 1–3 Quick Check 1–3 p. 479: ex. 1, 5, 6, 7, 11, 16	pp. 479–482 Practice by example: ex. 4, 8, 9, 12, 17, 19, 31 Apply your skills: ex. 36–41 Challenge: ex. 53 Test Prep: ex. 56–58 Mixed Review: ex. 60, 63	A.9 Analyze and solve verbal problems that involve exponential growth and decay.	Impact Mathematics , Course 3, Grade 8, Chapter 3.2: Exponential Relationships
	Part 2: Exponential Decay	How do we model exponential decay?	To model exponential decay.	pp. 478–479: Examples 4, 5 Quick Check 4, 5 pp. 479–480: ex. 20, 22, 24 26, 30 GPS p. 481: ex. 47	pp. 481–482 Practice by example: ex. 21, 25, 27 Apply your skills: ex. 44, 48, 50, 52 Challenge: ex. 55 Regents Test Prep: p. 489: ex. 1–12		

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CHAPTER 9: POLYNOMIALS AND FACTORING							
Lesson 9-1: <i>Adding and Subtracting Polynomials</i>							
SEMESTER 2: DAY 21	Part 1: Describing Polynomials	How do we add and subtract polynomials?	To identify monomials, polynomials.	pp. 494–496: Examples 1–4 Quick Check 1–4 pp. 497: ex. 1, 2, 5, 6, 9, 12, 18, 21, 24, 28, 31 GPS p. 497: ex. 39 Error Analysis p. 497: ex. 41	pp. 497–499 Practice by example: ex. 4, 8, 11, 20, 23, 25, 30 Apply your skills: ex. 36, 48, 51 Challenge: ex. 53, 54 Test Prep: ex. 56–60 Mixed Review: ex. 63, 75, 79, 83	A.13 Add, subtract, and multiply monomials and polynomials.	8.A.5 Use physical models to perform operations with polynomials. 8.A.7 Add and subtract polynomials (integer coefficients).
	Part 2: Classifying Polynomials		To add and subtract polynomials.				
Lesson 9-2: <i>Multiplying and Factoring</i>							
SEMESTER 2: DAY 22	Part 1: Distributing a Monomial	How do we factor a monomial from a polynomial?	To multiply a polynomial by a monomial (distributive property).	pp. 500–501: Examples 1–3 Quick Check 1–3 pp. 501–502: ex. 1, 4, 10, 13, 16, 19, 22 GPS p. 502: ex. 33	pp. 501–503 Practice by example: ex. 9, 12, 15, 18, 21, 24 Apply your skills: ex. 29, 32, 36, 39 Challenge: ex. 43 Test Prep: ex. 45–49 Mixed Review: ex. 57, 59, 64, 65	A.13 Add, subtract, and multiply monomials and polynomials. A.20 Factor algebraic expressions completely, including trinomials with a lead coefficient of one.	8.A.5 Use physical models to perform operations with polynomials. 8.A.8 Multiply a binomial by a monomial or binomial (integer coefficients). 8.A.10 Factor algebraic expressions using the GCF.
	Part 2: Factoring a Monomial from a Polynomial.		To factor a monomial from a polynomial (GCF).				

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Lesson 9-3: <i>Multiplying Binomials</i>							
SEMESTER 2: DAY 23	Part 1: Multiplying Two Binomials	How do we use the FOIL method to multiply two binomials?	To multiply a binomial by a binomial.	pp. 505–506: Examples 1–3 Quick Check 1–3 pp. 507–508: ex. 1, 5, 11, 14, 20	pp. 507–510 Practice by example: ex. 2, 7, 15, 16, 21 Apply your skills: ex. 31, 34, 42, 46. Test Prep: ex. 56–59 Mixed Review: ex. 61, 62, 69, 70, 77, 82 Checkpoint Quiz 1: p. 510: ex. 1–5	A.13 Add, subtract, and multiply monomials and polynomials.	8.A.5 Use physical models to perform operations with polynomials. 8.A.8 Multiply a binomial by a monomial or binomial (integer coefficients).
SEMESTER 2: DAY 24	Part 2: Multiplying a Trinomial and a Binomial	What method can we use to multiply a trinomial by a binomial?	To multiply trinomials and binomials.	p. 508: Examples 4 Quick Check 4 p. 508: ex. 22, 25, 27, 29 GPS p. 508: ex. 39	pp. 508–510 Practice by example: ex. 23, 24, 26, 28 Apply your skills: ex. 36, 38. Challenge: ex. 47–49. Mixed Review: ex. 63, 67, 73, 74, 80, 85 Checkpoint Quiz 1: ex. 6–10	A.13 Add, subtract, and multiply monomials and polynomials.	See Days 21, 22, 23 and 8.A.5, 8.A.7, and 8.A.8.

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Lesson 9-4: <i>Multiplying Special Cases</i>							
SEMESTER 2: DAY 25	Part 1: Finding the Square of a Binomial	How can we square a binomial using the FOIL method?	To find the square a binomial.	pp. 512–514: Activity 1, Examples 1–3 Quick Check 1–3 p. 515: ex. 1, 5, 7, 10–12 GPS p. 515: ex. 40	pp. 515–517 Practice by example: ex. 3, 6, 8, 9, 13, 14 Apply your skills: 26, 37, 39, 43 Challenge: ex. 53 Mixed Review: ex. 64, 67, 73, 74, 80	A.13 Add, subtract, and multiply monomials and polynomials.	8.A.5 Use physical models to perform operations with polynomials. 8.A.8 Multiply a binomial by a monomial or binomial (integer coefficients).
SEMESTER 2: DAY 26	Part 2: Difference of Squares	How do we find the product of the sum and difference of the same two terms?	To find the difference of squares.	pp. 514–515: Examples 4, 5 Quick Check 4, 5. p. 515: ex. 15, 16, 17, 21, 22	pp. 515–517 Practice by example: ex. 18, 19, 24 Apply your skills: ex. 41, 44, 46, 49, 50, 52 Challenge: ex. 57. Test Prep: ex. 58–62 Mixed review: ex. 68, 71, 79	A.13 Add, subtract, and multiply monomials and polynomials.	8.A.5 Use physical models to perform operations with polynomials. 8.A.8 Multiply a binomial by a monomial or binomial (integer coefficients).

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PACING	CHAPTER/ LESSON/ UNIT	LESSON AIM FOR TOPIC	OBJECTIVES FOR AIM	SUGGESTED CLASSWORK	SUGGESTED HOMEWORK	NYSED CONTENT STRAND	TAUGHT IN MS (PRE-REQUISITES)
Lesson 9-5: <i>Factoring Trinomials of the Type $x^2 + bx + c$</i>							
SEMESTER 2: DAY 27	Part 1: Factoring Trinomials	How do we factor trinomials with a lead coefficient of one?	To factor trinomials of the type $ax^2 + bx + c$.	pp. 519–521: Examples 1–4 Quick Check 1–4 pp. 521–522: ex. 1, 3, 8, 11, 17, 21, 27, 30, 33, 36 GPS p. 522: ex. 55	pp. 521–522 Practice by example: ex. 2, 4, 12, 15, 18, 26, 29, 31, 38 Challenge: ex. 60, 63 Test Prep: ex. 65–70 Mixed Review: ex. 81, 83, 84	A.20 Factor algebraic expressions completely, including trinomials with a lead coefficient of one.	8.A.11 Factor a trinomial in the form $ax^2 + bx + c$; $a = 1$ and c having no more than 3 sets of factors.
	Lesson 9-6: <i>Factoring Trinomials of the Type $ax^2 + bx + c$ (Optional)</i>						

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Lesson 9-7: Factoring Special Cases							
SEMESTER 2: DAY 28	Part 1: Factoring Perfect Square Trinomials	How do we factor perfect square trinomials?	To factor perfect square trinomials.	pp. 528–529: Activity 1, Examples 1, 2 Quick Check 1, 2 p. 531: ex. 1, 2, 6, 7, 8, 10, 13 GPS p. 532: ex. 54	pp. 531–533 Practice by example: ex. 3, 4, 5, 9 Apply your skills: ex. 37, 46, 48, 50, 52 Challenge: ex. 56, 58 Checkpoint Quiz 2: ex. 1–5	A.19 Identify and factor the difference of 2 perfect squares. A.20 Factor algebraic expressions completely, including trinomials with a lead coefficient of one.	8.A.11 Factor a trinomial in the form $ax^2 + bx + c$; $a = 1$ and c having no more than 3 sets of factors.
SEMESTER 2: DAY 29	Part 2: Factoring the Difference of Squares.	How do we factor the difference of squares?	To factor the difference of squares.	p. 530: Examples 3–5 p. 531: ex. 14, 16, 19, 22, 25, 31	pp. 531–532 Practice by example: ex. 15, 17, 20, 23, 26, 29, 32, 35 Apply your skills: ex. 45, 49, 53 Challenge: ex. 60, 64 Test Prep: ex. 67–68 Checkpoint Quiz 2: ex. 6, 9, 10	A.19 Identify and factor the difference of 2 perfect squares. A.20 Factor algebraic expressions completely, including trinomials with a lead coefficient of one.	8.A.11 Factor a trinomial in the form $ax^2 + bx + c$; $a = 1$ and c having no more than 3 sets of factors.

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Lesson 9-8: Factoring by Grouping (Optional)							
SEMESTER 2: DAY 30	Activity Lab: Sampling and Surveys pp. 426–427	When would collected data be biased?	To interpret samplings and surveys.	<i>(This will probably become a new lesson)</i>		S.1 Categorize data as qualitative or quantitative. S.3 Determine when collected data or display of data may be biased.	
	Activity Lab: Interpreting Statistical Results pp. 546–547	How would you determine if data is univariate or bivariate?	To interpret statistical results.	<i>(This will probably become a new lesson)</i>		S.2 Determine whether the data to be analyzed is univariate or bivariate.	

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CHAPTER 10: QUADRATIC EQUATIONS AND FUNCTIONS							
Lesson 10-1: <i>Exploring Quadratic Graphs</i>							
SEMESTER 2: DAY 31	Part 1: Graphing $y = ax^2$	How do we graph an equation of the form $y = ax^2$?	To graph quadratic functions of the form $y = ax^2$.	pp. 552–553 Examples 1–3 Quick Check 1–3 p. 553: ex. 1–6 (Easy) pp. 553–553: ex. 10, 11, 27, 28 (Average) p. 555: ex. 39 (Challenge)	pp. 553–554: ex. 7, 8, 9, 34, 35 pp. 553–554: ex. 12, 13, 29, 30 Challenge: p. 555: ex. 48 Test Prep: p. 556: ex. 50–52 Mixed Review: p. 556: ex. 60–62	G.4 Identify and graph linear, quadratic (parabolic), absolute value, and exponential functions. G.10 Determine the vertex and axis of symmetry of a parabola, given its graph.	8.A.4 Create a graph given a description or an expression for a situation involving a linear or nonlinear relationship. 8.G.20 Distinguish between linear and nonlinear equations $ax^2 + bx + c$; $a = 1$ (only graphically). 8.G.21 Recognize the characteristics of quadratics in tables, graphs.
SEMESTER 2: DAY 32	Part 2: Graphing $y = ax^2 + c$	How do we graph an equation of the form $y = ax^2 + c$?	To graph quadratic functions of the form $y = ax^2 + c$.	pp. 552–553: Examples 4, 5 Quick Check 4, 5 p. 554: ex. 14, 15, 16 p. 554: ex. 20, 31 p. 555: ex. 38, 39, 44, 48	pp. 554: ex. 17, 18, 19 p. 554: ex. 21–26, 32, 33 p. 555: ex. 45, 46, 47 Challenge: p. 555: ex. 46 Mixed Review: p. 556: ex. 63–66	G.4 Identify and graph linear, quadratic (parabolic), absolute value, and exponential functions. G.10 Determine the vertex and axis of symmetry of a parabola, given its graph.	8.A.4 Create a graph given a description or an expression for a situation involving a linear or nonlinear relationship. 8.G.20 Distinguish between linear and nonlinear equations $ax^2 + bx + c$; $a = 1$ (only graphically). 8.G.21 Recognize the characteristics of quadratics in tables, graphs.

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PACING	CHAPTER/ LESSON/ UNIT	LESSON AIM FOR TOPIC	OBJECTIVES FOR AIM	SUGGESTED CLASSWORK	SUGGESTED HOMEWORK	NYSED CONTENT STRAND	TAUGHT IN MS (PRE-REQUISITES)
Lesson 10-2: Quadratic Functions							
SEMESTER 2: DAY 33	Part 1: Graphing $y = ax^2 + bx + c$	How do we graph $y = ax^2 + bx + c$ and $y \leq ax^2 + bx + c$?	To graph quadratic equations.	pp. 557–559: Examples 1, 2 Quick Check 1, 2 p. 560–561: ex. 1, 2, 11, 12, 22, 24 p. 560–562: ex. 15, 16, 37, 40, 41, p. 562: ex. 42, 43	p. 560: ex. 3, 4, 13, 14 p. 560: ex. 5-10, 24-25 Challenge: p. 561: ex. 44, 45	A.8 Analyze and solve verbal problems that involve quadratic equations. G.4 Identify and graph linear, quadratic (parabolic), absolute value and exponential functions.	8.A.4 Create a graph given a description or an expression for a situation involving a linear or nonlinear relationship. 8.G.21 Recognize the characteristics of quadratics in tables, graphs.
SEMESTER 2: DAY 34	Part 2: Graphing Quadratic Inequalities	How do we graph inequalities?	To graph quadratic inequalities.	pp. 559: Example 3 Quick Check 3 p. 560: ex. 17, 18, 19 p. 561: ex. 38 p. 561: ex. 36	p. 560: ex. 20, 21, 22 p. 561: ex. 39 p. 562: ex. 43 Mixed Review: p. 563: ex. 56, 59, 61 Test Prep: p. 563: ex. 46–49		
Lesson 10-3: Solving Quadratic Equations							
SEMESTER 2: DAY 35	Part 1: Solving Quadratic Equations by Graphing Part 2: Solving Quadratic Equations by Using Square Roots	How do we solve quadratic equations by graphing or using square roots?	To solve quadratic equations by graphing and by using square roots.	pp. 565–566: Example 1 Quick Check 1 p. 567: ex. 1–5 p. 567: Examples 2, 3. Quick Check p. 567: 2, 3 p. 567–569: ex. 10, 11, 12 (continued)	p. 567: ex. 6, 7, 8, 9. pp. 567-568 ex. 13–15, 23–25 pp. 567–569 ex. 18, 21, 28, 29, 30, 42 Challenge: p. 569: ex. 43–45 Spiraling: p. 570: ex. 57–59, 63–65 Multiple Choice: p. 569–570: ex. 46–48	A.8 Analyze and solve verbal problems that involve quadratic equations. A.28 Understand the difference and connection between roots of a quadratic equation and factors of a quadratic expression. (continued)	8.A.11 Factor a trinomial in the form $ax^2 + bx + c$; $a = 1$ and c having no more than 3 sets of factors. 8.A.19 Interpret multiple representations using equation, table of values and graph.

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SEMESTER 2: DAY 35 (continued)				p. 567: ex. 16, 17, 19, 20, 31–33, 41 p. 568: ex. 22, 34, 35, 36, 37, 38		G.8 Find the roots of a parabolic function graphically.	
Lesson 10-4: <i>Factoring to Solve Quadratic Equations</i>							
SEMESTER 2: DAY 36	Part 1: Solving Quadratic Equations Activity Lab p. 571 Finding Roots	How do we solve quadratic equations algebraically?	To solve quadratic equations by factoring.	p. 572–573: Examples 1–4 Quick Check: 1–4 p. 574: ex. 1–3, 7, 9–11 p. 574: ex. 15–17, 26, 27 pp. 574–575: ex. 32–36 Activity Lab p. 571: ex. 1, 4, 7	pp. 574: ex. 4–6, 8, 12–14 p. 574: ex. 18–20, 28, 29 Activity Lab: p. 571: ex. 5, 8 p. 575: ex. 37, 44–47 Challenge: p. 575: ex. 45 Mixed Review: p. 576: ex. 56–61 Multiple Choice: pp 575–576: ex. 48–52 Checkpoint Quiz: p. 570: ex. 1–10	A.8 Analyze and solve verbal problems that involve quadratic equations. A.27 Understand and apply the multiplication property of zero to solve quadratic equations with integral coefficients and integral roots.	8.A.10 Factor algebraic expressions using the GCF. 8.A.11 Factor a trinomial in the form $ax^2 + bx + c$; $a = 1$ and c having no more than 3 sets of factors.

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PACING	CHAPTER/ LESSON/ UNIT	LESSON AIM FOR TOPIC	OBJECTIVES FOR AIM	SUGGESTED CLASSWORK	SUGGESTED HOMEWORK	NYSED CONTENT STRAND	TAUGHT IN MS (PRE-REQUISITES)
Lesson NY-6: <i>Systems of Linear and Quadratic Equations</i>							
SEMESTER 2: DAY 37	<p>Part 1: Solving Systems Using graphing</p> <p>Part 2: Solving Systems Using Algebraic Methods</p>	How can we solve a linear-quadratic system algebraically and graphically?	To solve a linear-quadratic system algebraically and graphically.	<p>pp. 752–753: Examples 1, 2 Quick Check 1, 2</p> <p>p. 753–754: Examples 3–6 Quick Check 3–6. 1</p>	<p>pp. 755–756: ex. 4, 6, 10, 12, 16, 19, 29, 32, 37, 41, 44</p> <p>Challenge: p. 757 ex. 45</p> <p>Test Prep: p. 757: ex. 46–49</p> <p>Mixed Review: p. 757: 50, 51, 52, 54: ex. 45–47</p>	<p>A.11 Solve a system of one linear and one quadratic equation in 2 variables where only factoring is required.</p> <p>G.9 Solve systems of linear and quadratic equations graphically.</p>	<p>8.A.4 Create a graph given a description or an expression for a situation involving a linear or nonlinear relationship.</p> <p>8.G.18 Solve systems of equations graphically (only linear, integral solutions, $y = mx + b$ format, no vertical/horizontal lines).</p>
Lesson 10-5: <i>Completing the Square</i> A.8 (Optional)							
Lesson 10-6: <i>Using the Quadratic Formula</i> A.8 (Optional)							
Lesson 10-7: <i>Using the Discriminant</i>							
SEMESTER 2: DAY 38	<p>Part 1: Number of Real Solutions of a Quadratic Equation.</p>	How can we use the discriminant to determine the number of solutions?	To use the discriminant to determine the number of solutions of a quadratic equation.	<p>P. 592–593: Examples 1, 2 Quick Check 1, 2</p> <p>p. 594: ex. 1, 4, 6, 7, 10, 11, 19, 20, 21</p> <p>p. 594–595: ex. 16, 17, 26, 30</p> <p>p. 594: ex. GPS 25, 38–41</p>	<p>p. 594: ex. 5, 8, 9, 12, 13, 22, 23, 24</p> <p>p. 594–595: ex. 18, 31, 33, 34</p> <p>p. 595: ex. 25, 37, 42</p> <p>Mixed Review: p. 596: ex. 55–57</p> <p>Multiple choice: p. 595–596: ex. 43–47</p> <p>Checkpoint Quiz 2: p. 596: ex. 1–10</p>	<p>A.8 Analyze and solve verbal problems that involve quadratic equations.</p>	<p>6.A.2 Use substitution to evaluate algebraic expressions (may include exponents of one, two and three).</p>
Lesson 10-8: <i>Choosing a Linear, Quadratic, or Exponential Model</i> *AR.2 (Optional)							

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CHAPTER 11: RADICAL EXPRESSIONS AND EQUATIONS							
Lesson 11-1: <i>Simplifying Radicals</i>							
SEMESTER 2: DAY 39	Part 1: Simplifying Radical Expressions Involving Products	How do we simplify radical expressions involving products?	To simplify radicals involving products.	p. 616–617 Examples: 1–4 Quick Check 1–4 p. 619: ex. 1, 4, 5, 7, 8, 9 p. 619–620: ex. 13, 14, 16, 21, 22, 24, 25, 26 p. 620–621: ex. 69, 70, 72, 74, 75, 77	p. 619–620: ex. 2, 3, 6, 10, 11, 12 p. 619–620: ex. 15, 17, 18, 19, 20, 23, 27 Challenge: p. 621: ex. 70, 71, 73, 75, 76, 78 Mixed Review: p. 621: ex. 87, 90 Regents Test Prep: p. 611: ex. 1–6	N.2 Simplify radical terms. N.3 Perform the 4 arithmetic operations using like and unlike terms.	7.N.4 Develop the laws of exponents for multiplication and division. 7.N.15 Recognize and state the value of the square root of a perfect square (up to 225). 8.N.1 Develop and apply the laws of exponents for multiplication and division. 8.A.6 Multiply and divide monomials.
SEMESTER 2: DAY 40	Part 2: Simplifying Radical Expressions Involving Quotients	How do we simplify radical expressions involving quotients?	To simplify radicals involving quotients.	p. 618–619 Examples: 5–7 Quick Check 5–7 p. 620: ex. 28, 32, 36, 40 p. 620: ex. 44–47, 52, 53 p. 621: ex. 78	p. 620: ex. 29, 33, 37, 41 p. 620: ex. 48–51 Challenge: p. 620: ex. 71 Mixed Review: p. 628: ex. 85–90 Test Prep: p. 621: 79–82	N.2 Simplify radical terms. N.3 Perform the 4 arithmetic operations using like and unlike terms.	7.N.4 Develop the laws of exponents for multiplication and division. 7.N.15 Recognize and state the value of the square root of a perfect square (up to 225). 8.N.1 Develop and apply the laws of exponents for multiplication and division. 8.A.6 Multiply and divide monomials.

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Lesson 11-2: Operations with Radical Expressions							
SEMESTER 2: DAY 41	Part 1: Simplifying Sums and Differences	How do we simplify radical expressions of sums and differences?	To simplify radicals containing sums and differences.	p. 622–623 Examples: 1–3 Quick Check 1–3 p. 625: ex. 1, 3, 4, 7, 8, 10, 11, 14 pp. 625–626: ex. 16, 18, 20, 48, 51 pp. 626–627: ex. 53, 54, 64, 66, 67	p. 625: ex. 2, 5, 6, 12, 13, 15 p. 625–626: ex. 17, 19, 21, 49, 50 Challenge: pp. 626–627: ex. 52, 65, 69, 70 Mixed Review: p. 628: ex. 85–90 Test Prep: p. 627: 72, 73	N.2 Simplify radical terms. N.3 Perform the 4 arithmetic operations using like and unlike terms.	7.N.8 Find the common factors and greatest common factor of two or more numbers. 7.N.15 Recognize and state the value of the square root of a perfect square (up to 225). 8.N.1 Develop and apply the laws of exponents for multiplication and division.
SEMESTER 2: DAY 42	Part 2: Simplifying Products and Quotients	How do we simplify radical expressions of products and quotients?	To simplify radicals containing products and quotients.	p. 623–624; Examples: 4–6 Quick Check 4–6 p.625: ex. 22, 24, 26 p. 625: ex. 28, 30, 32, 34, 37, 42 p. 625–627: ex. 47, 59, 66, 67	p. 625: ex. 23, 25, 27 p. 625: ex. 29, 31, 33, 35, 36, 46 Challenge: p. 627: ex. 55-58, 65, 70 Mixed Review: p. 628: ex. 91–96	N.2 Simplify radical terms. N.3 Perform the 4 arithmetic operations using like and unlike terms.	7.N.8 Find the common factors and greatest common factor of two or more numbers. 7.N.15 Recognize and state the value of the square root of a perfect square (up to 225). 8.N.1 Develop and apply the laws of exponents for multiplication and division.
Lesson 11-3: Solving Radical Equations *PS.9 (Optional)							
Lesson 11-4: Graphing Square Root Functions *R.8 (Optional)							

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Lesson 11-5: Trigonometric Ratios							
SEMESTER 2: DAY 43	Part 1: Finding Trigonometric Ratios	How can we find the sine, cosine, and tangent ratios of a right triangle and apply them to find missing sides?	To find trigonometric ratios in a right triangle and to apply them.	pp. 646–647; Examples 1–3 Quick Check 1–3 p. 648: ex. 1–9 p. 648: ex. 15–17, 21, 22 pp. 648–649: ex. 26, 27, 30, 31, 34	p. 648: ex. 10–12 p. 648: ex. 18–20, 23, 24 Challenge: pp. 647–649: ex. 28, 29, 32–33 Mixed Review: p. 649: ex. 42–44, 45, 46, 50 Test Prep: p. 649: ex. 36, 37	A.42 Find the sine, cosine, and tangent ratios of an angle of a right triangle, given the lengths of the sides. A.44 Find the measure of a side of a right triangle, given an acute angle and the length of another side.	7.G.5 Identify the right angle, hypotenuse, and legs of a right triangle.
Lesson 11-6: Angles of Elevation and Depression Extension: Finding Angles in Right Triangles p. 654							
SEMESTER 2: DAY 44	Extension: Finding Angles in Right Triangles p. 654 Part 1: Solving Problems Using Trigonometric Ratios	How do we solve problems using angle of elevation or angle of depression?	To solve trigonometric problems using angle of elevation or angle of depression. To find the measure of an angle in a Right triangle using trigonometric ratios.	pp. 650–651; Examples 1, 2. Quick Check 1, 2 p. 652: ex. 1, 3, 5 p. 652: ex. 6, 8 p. 652: ex. 11, 12 p. 654: Example p. 654: ex. 1, 4 p. 654: ex. 1, 2, 4	p. 652: ex. 5–7, 9, 19 p. 654: ex. 3, 6 p. 652: ex. 2, 4 p. 652: ex. 7, 9, 10 p. 652: ex. 12, 15 p. 654: ex. 3, 5, 6 Mixed Review: p. 653: ex. 22–24 Test Prep: p. 653: ex. 13, 14 Checkpoint Quiz 2: p. 653: ex. 1–5	A.42 Find the sine, cosine, and tangent ratios of an angle of a right triangle, given the lengths of the sides. A.43 Determine the measure of an angle of a right triangle, given the length of any 2 sides of the triangle. A.44 Find the measure of a side of a right triangle, given an acute angle and the length of another side.	

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Lesson 12-2: <i>Simplifying Rational Expressions</i>							
SEMESTER 2: DAY 45	Part 1: Simplifying Rational Expressions	How do we simplify rational expressions by factoring them and renaming them?	To simplify rational expressions.	pp. 672–674: Examples 1–4 Quick Check 1–4 p. 674: ex. 1, 2, 3, 23 p. 674: ex. 7, 9, 13, 15, 16, 17, 25 p. 675: ex. 35, 36, 37, 38, 44	p. 674: ex. 4, 5, 6, 24 p. 674: ex. 8, 11, 14, 18, 19, 20 p. 674–675: ex. 27, 32, 39, 42, 43 Challenge: p. 675: ex. 42, 47 Mixed Review: p. 676: ex. 57, 60, 63, 68, 69 Test Prep: pp. 675–676: ex. 48–52 Checkpoint Quiz 1: p. 676: ex. 3–5	A.15 Find values of a variable for which an algebraic fraction is undefined. A.16 Simplify fractions with polynomials in the numerator and denominator by factoring both and renaming them in lowest terms.	7.N.1 Distinguish between the various subsets of real numbers (counting/natural numbers, whole numbers, integers, rational numbers, and irrational numbers). 8.A.10 Factor algebraic expressions using the GCF. 8.A.11 Factor a trinomial in the form $ax^2 + bx + c$; $a = 1$ and c having no more than 3 sets of factors.

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Lesson 12-3: <i>Multiplying and Dividing Rational Expressions</i>							
SEMESTER 2: DAY 46	Part 1: Multiplying Rational Expressions	How do we multiply expressions and simplify them?	To multiply rational expressions.	pp. 677–678: Examples 1–3 Quick Check 1–3 p. 679: ex. 1, 2, 3 p. 679: ex. 7, 8, 9, 13, 29, 34 pp. 679–680: ex. 35, 41, 44, 45	p. 679: ex. 4, 5, 6 p. 679: ex. 10, 11, 12, 14, 30 Challenge: p. 681: ex. 36, 43 Mixed Review: p. 681: ex. 60, 71, 74 Test Prep: p. 681: ex. 54–57	A.18 Multiply and divide algebraic fractions and express the product or quotient in simplest form.	8.A.6 Multiply and divide monomials. 8.A.8 Multiply a binomial by a monomial or binomial (integer coefficients). 8.A.10 Factor algebraic expressions using the GCF. 8.A.11 Factor a trinomial in the form $ax^2 + bx + c$; $a = 1$ and c having no more than 3 sets of factors.
SEMESTER 2: DAY 47	Part 2: Dividing Rational Expressions	How do we divide rational expressions and simplify them?	To divide rational expressions.	p. 678: Examples 4, 5. Quick Check 4, 5 p. 679: ex. 16, 20, 23, 26 p. 679: ex. 30, 32 pp. 680–681: ex. 37, 40, 51, 52	p. 679: ex. 18, 21, 24, 27 p. 679: ex. 33 Challenge: pp. 680–681: ex. 39, 46, 49, 53, 56 Mixed Review: p. 681: ex. 65, 72, 76 Test Prep: pp. 681 ex. 54–57	A.18 Multiply and divide algebraic fractions and express the product or quotient in simplest form.	6.N.19 Identify the multiplicative inverse (reciprocal) of a number. Multiplication and division of fractions is a focus in Grade 6. See also P.I.’s Day 46

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Lesson 12-4: <i>Dividing Polynomials</i>							
SEMESTER 2: DAY 48	Part 1: Dividing Polynomials	How do we divide a polynomial by a monomial or a binomial?	To divide polynomials.	pp. 682–684: Examples 1–4 Quick Check 1–4 p. 684: ex. 1, 3, 5, 27 pp. 684–685: ex. 7, 11, 13, 20, 21, 26, 31 p. 685: ex. 42, 45, 46, 47, 51 GPS p. 685: ex. 42	pp. 684–685: ex. 2, 4, 6 pp. 684–685: ex. 8, 10, 14, 19, 22, 30, 39 Challenge: p. 685: ex. 41, 43, 44, 48, 49 Mixed Review: p. 686: ex. 62–67, 68–72 Test Prep: p. 686: ex. 53–55	A.14 Divide a polynomial by a monomial or binomial, where the quotient has no remainder. A.18 Multiply and divide algebraic fractions and express the product or quotient in simplest form.	8.A.9 Divide a polynomial by a monomial (integer coefficients). Note: The degree of the denominator is less than or equal to the degree of the numerator for all variables.

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Lesson 12-5: Adding and Subtracting Rational Expressions							
SEMESTER 2: DAY 49	Part 1: Adding and Subtracting Rational Expressions with Like Denominators	How can we add and subtract rational expressions with like denominators?	To add rational expressions with like denominators.	pp. 687–688 Examples 1, 2 Quick Check 1, 2 p. 689: ex. 1, 4, 7, 10 p. 690: ex. 30, 33, 40 p. 690: ex. 53	p. 689: ex. 2, 5, 8, 9, 11 p. 690: ex. 31, 32, 36 Challenge: p. 690: ex. 52, 54 Mixed Review: p. 691: ex. 59, 60, 64–66 Test Prep: p. 691: ex. 55–57	A.17 Add or subtract fractional expressions with monomial or like binomial denominators.	6.N.3 Define and identify the distributive property of multiplication over addition. 7.N.9 Determine multiples and least common multiple of two or more numbers. 8.A.7 Add and subtract polynomials (integer coefficients). 8.A.11 Factor a trinomial in the form $ax^2 + bx + c$; $a = 1$ and c having no more than 3 sets of factors.
SEMESTER 2: DAY 50	Part 2: Adding and Subtracting Rational Expressions with Unlike Denominators	How can we add and subtract rational expressions with unlike denominators?	To add rational expressions with unlike denominators.	pp. 688–689: Examples 3–5 Quick Check 3–5 p. 689: ex. 13, 14, 17, 18, 20 p. 690: ex. 23, 24, 26, 34, 35 p. 690: ex. 42, 43, 45, 51, 52	p.689: ex. 15, 16, 19, 21, 22 p. 690: ex. 25, 27, 28, 36, 37, 38, 39 Challenge: p. 690: ex. 41, 44, 48, 49, 50, 53	A.17 Add or subtract fractional expressions with monomial or like binomial denominators.	6.N.3 Define and identify the distributive property of multiplication over addition. 7.N.9 Determine multiples and least common multiple of two or more numbers. 8.A.7 Add and subtract polynomials (integer coefficients). 8.A.11 Factor a trinomial in the form $ax^2 + bx + c$; $a = 1$ and c having no more than 3 sets of factors.

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Lesson 12-6: Solving Rational Equations							
SEMESTER 2: DAY 51	<p>Part 1: Solving Rational Equations</p> <p>Part 2: Solving Proportions</p>	How do we solve equations containing rational expressions?	<p>To solve rational equations.</p> <p>To solve proportions.</p>	<p>pp. 692–693: Examples 1–3 Quick Check 1–3</p> <p>p. 695: ex. 1, 4, 7, 10, 13,</p> <p>pp. 695–696: ex. 16, 32, 41</p> <p>p. 696: ex. 44, 45, 46, 48</p> <p>p. 694: Examples 4, 5 Quick Check 4, 5</p> <p>p. 695: ex. 18, 21</p> <p>p. 695: ex. 34</p> <p>p. 695: ex. 38</p>	<p>p. 695: ex. 2, 5, 8, 11, 14</p> <p>p. 695: ex. 17, 35</p> <p>Challenge: p. 696: ex. 42, 43, 47</p> <p>p. 695: ex. 22–23</p> <p>Challenge: p. 696: ex. 33</p> <p>Spiraling: p. 697: ex. 62–65</p> <p>Test Prep: p. 697: ex. 49–51</p>	<p>A.20 Factor algebraic expressions completely, including trinomials with a lead coefficient of one.</p> <p>A.26 Solve algebraic proportions in one variable which result in linear or quadratic equations.</p>	<p>6.N.9 Solve proportions using equivalent fractions.</p> <p>7.N.9 Determine multiples and least common multiple of two or more numbers.</p> <p>8.A.11 Factor a trinomial in the form $ax^2 + bx + c$; $a = 1$ and c having no more than 3 sets of factors.</p>

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Lesson 12-7: <i>Counting Methods and Permutations</i>							
SEMESTER 2: DAY 52	Part 1: Using the Multiplication Counting Principle	How can we use the multiplication counting principle?	Using the multiplication counting principle.	pp. 699–700: Examples 1, 2. Quick Check 1, 2 p. 702: ex. 1, 3 p. 703: ex. 20 pp. 704–705: ex. 36–37	p. 702: ex. 24 p. 703 ex. 21 Challenge: p. 705: ex. 38, 39	N.7 Determine the number of possible events, using counting techniques.	6.S.11 Determine the number of possible outcomes for a compound event by using the fundamental counting principle and use this to determine the probabilities of events when the outcomes have equal probability.
SEMESTER 2: DAY 53	Part 2: Finding Permutations	How do we find the number of permutations of objects in a set?	Finding permutations.	pp. 701–702: Examples 3–5 Quick Check 3–5 p. 702–703: ex. 7, 8, 10, 17, 18 pp. 703–705: ex. 15, 20, 21, 29, 31, 39 pp. 703–705: ex. 27, 28, 29, 34	p. 703: ex. 11, 12, 13, 14, 19 pp. 703–704: ex. 22, 26, 30 pp. 703–704: ex. 30, 31, 32, 33, 35 Mixed Review: p. 704: ex. 46–49 Check Point Quiz 2 p. 705: ex. 1–10	N.8 Determine the number of possible arrangements (permutations).	6.S.11 Determine the number of possible outcomes for a compound event by using the fundamental counting principle and use this to determine the probabilities of events when the outcomes have equal probability.

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Lesson 12-8: <i>Combinations</i>							
SEMESTER 2: DAY 54	<p>Part 1: Combinations</p> <p>Part 2: Probability with Counting Techniques</p>	<p>How do we find the number of combinations of objects in a set?</p> <p>How do we use permutations and combinations to solve probability problems?</p>	<p>To find the number of combinations.</p> <p>To use permutations and combinations to solve probability problems.</p>	<p>pp. 706–707: Examples 1, 2 Quick Check 1, 2</p> <p>p. 709: ex. 1, 2, 6, 16, 17, 20, 21</p> <p>p. 709–710: ex. 11, 22, 26</p> <p>p. 710: ex. 24, 25</p> <p>p. 709: ex. 13</p> <p>p. 709: ex. 15</p> <p>p. 710: ex. 30, 34</p>	<p>p. 709: ex. 1, 2, 6, 16, 17, 20, 21</p> <p>pp. 709–710: ex. 11, 22, 26</p> <p>Challenge: p. 710: ex. 24–25</p> <p>p. 709: ex. 14</p> <p>p. 710: ex. 28</p> <p>p. 710: ex. 31–33</p> <p>Mixed Review: p. 711: ex. 46 47, 48, 49, 50</p> <p>Test Prep: p. 711: ex. 53–58</p>	N.8 Determine the number of possible arrangements (permutations).	