

| PACING   | CHAPTER/<br>LESSON/<br>UNIT               | LESSON<br>AIM FOR<br>TOPIC                               | OBJECTIVES<br>FOR AIM                                     | SUGGESTED<br>CLASSWORK   | SUGGESTED<br>HOMEWORK  | NYSED<br>CONTENT<br>STRAND   | TAUGHT IN MS<br>(PRE-REQUISITES)  |
|--|---|--|---|--|--|--|---|
| <b>CHAPTER 10: QUADRATIC EQUATIONS AND FUNCTIONS</b> |   |  |   |  |  |  |   |
| Lesson 10–1: <i>Exploring Quadratic Graphs</i>       |   |  |   |  |  |  |   |
| DAY 1  | <b>Part 1:</b><br>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<br>Quick Check 1-3<br>p. 553 ex. 1-6<br>pp. 553-553 ex. 10, 11, 27, 28<br>p. 555 ex. 39      | pp. 553-554: ex. 7, 8, 9, 34, 35<br><br>pp. 553-554 ex. 12, 13, 29, 30<br><br>Challenge p. 555: ex.48                    | <b>G.4</b> Identify and graph linear, quadratic (parabolic), absolute value, and exponential functions<br><br><b>G.10</b> Determine the vertex and axis of symmetry of a parabola, given its graph | <b>8.A.4</b> Create a graph given a description or an expression for a situation involving a linear or nonlinear relationship<br><br><b>8.G.20</b> Distinguish between linear and nonlinear equations $ax^2 + bx + c$ ; $a = 1$ (only graphically)<br><br><b>8.G.21</b> Recognize the characteristics of quadratics in tables, graphs |
| DAY 2  | <b>Part 2:</b><br>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<br>Quick Check 4, 5<br>p. 554: ex 14, 15, 16<br>p. 554 ex. 20 , 31<br>p. 555 ex. 38, 39, 44 | pp. 554: ex. 17, 18, 19<br>p. 554 ex. 21-26, 32, 33<br><br>Challenge p. 555: ex.46, 49                                   |  |   |
| DAY 3  | Practice with Graphing                    |  |   | GPS p. 555: ex.39<br>Grab & Go<br>Chap 10<br>Practice 10–1<br>Reteaching 10–1  | Test Prep p. 556: ex. 54-66<br><br>Mixed Review: ex. 47-49, 50-51<br><br>All-in-One Wkbk 10–1<br><br>TE Lesson Quiz 10–1 |  |   |

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|----------------------------------|---|---|---------------------------------------|--|--|---|--|
| Lesson 10–2: Quadratic Functions |   |   |                                       |  |  |   |  |
| DAY 4                            | <b>Part 1:</b><br>Graphing<br>$y = ax^2 + bx + c$       | How do we graph<br>$y = ax^2 + bx + c$<br>and<br>$y \leq ax^2 + bx + c$ ? | To Graph<br>Quadratic<br>Equations    | pp. 557-559:<br>Examples 1, 2<br>Quick Check 1, 2<br>p. 560-561<br>ex. 1, 2, 11, 12,<br>22, 24<br>p. 560-562<br>ex. 15, 16, 37,<br>40, 41<br>p. 562 ex. 42, 43 | p. 560: ex. 3, 4, 13, 14<br>p. 560: ex. 5-10, 24-25<br><br>Challenge p. 561:<br>ex. 44, 45                                 | <b>A.8</b> Analyze and solve verbal problems that involve quadratic equations<br><br><b>G.4</b> Identify and graph linear, quadratic(parabolic), absolute value and exponential functions | <b>8.A.4</b> Create a graph given a description or an expression for a situation involving a linear or nonlinear relationship<br><br><b>8.G.21</b> Recognize the characteristics of quadratics in tables, graphs |
| DAY 5                            | <b>Part 2:</b><br>Graphing<br>Quadratic<br>Inequalities | How do we graph<br>inequalities?  | To Graph<br>Quadratic<br>Inequalities | pp. 559:<br>Example 3<br>Quick Check 3<br>p. 560 ex. 17, 18,<br>19, 35   | pp. 560-561<br>ex. 20, 21, 22, 39, 43:   |   |  |
| DAY 6                            | Practice<br>Graphing<br>Quadratic<br>Inequalities       |   |                                       | GPS p. 561 ex. 36<br>Grab & Go<br>Chap 10<br>Practice 10–2<br>Reteaching 10–2  | Mixed Review p. 563<br>ex. 56, 59, 61<br>Test Prep p. 563:<br>ex. 46-49<br><br>All-in-One Wkbk 10–2<br>TE Lesson Quiz 10–2 |   |  |

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|--|---|--|---|---|--|---|--|
| Lesson 10–3: Solving Quadratic Equations |   |  |   |   |  |   |  |
| DAY 7                                    | <b>Part 1:</b><br>Solving Quadratic Equations by Graphing           | 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:<br>Example 1<br>Quick Check 1<br>p. 567: ex. 1, 5, 7, 36   | p. 567: ex. 6, 7, 8, 9, 28, 29, 30, 42<br><br>Mixed Review 51-59   | <b>A.8</b> Analyze and solve verbal problems that involve quadratic equations.<br><br><b>A.28</b> Understand the difference and connection between roots of a quadratic equation and factors of a quadratic expression.<br><br><b>G.8</b> Find the roots of a parabolic function graphically. | <b>8.A.11</b> Factor a trinomial in the form $ax^2 + bx + c$ ; $a = 1$ and $c$ having no more than three sets of factors<br><br><b>8.A.19</b> Interpret multiple representations using equation, table of values and graph |
| DAY 8                                    | <b>Part 2:</b><br>Solving Quadratic Equations by Using Square Roots |  |   | p. 567:<br>Examples 2-3<br>Quick Check<br>p. 567: 2-3<br>p. 567-569<br>ex. 10, 11, 16, 19, 20<br>p. 568 ex. 22, 34, 35, | pp. 567-568 ex. 13-15, 18, 23-25<br><br>Mixed Review p. 570<br>ex. 60-68<br><br>Test Prep p. 569-570:<br>ex. 46-47 |   |  |
| DAY 9                                    | Practice Graphing   |  |   | GPS p. 568 ex 26<br>Grab & Go<br>Chap 10<br>Practice 10–3<br>Reteachng 10–3   | Challenge p. 569:<br>ex. 43-45:<br><br>All-in-One Wkbk 10–3<br><br>TE lesson Quiz 10–3                             |   |  |

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|---|---|--|---|---|---|--|--|
| Lesson 10–4: Factoring to Solve Quadratic Equations |   |  |   |   |   |  |  |
| DAY 10  | <b>Part 1:</b><br>Solving Quadratic Equations | How do we solve quadratic equations algebraically? | To Solve Quadratic Equations by Factoring.                                      | pp. 572-573:<br>Examples 1-4<br>Quick Check: 1-4<br><br>p. 574: ex. 1-3, 7, 9-11, 15-17   | pp. 574<br>ex. 4-6, 8, 12-14, 18-20, 28, 29 | <b>A.8</b> Analyze and solve verbal problems that involve quadratic equations.<br><br><b>A.27</b> Understand and apply the multiplication property of zero to solve quadratic equations with integral coefficients and integral roots. | <b>8.A.10</b> Factor algebraic expressions using the GCF<br><br><b>8.A.11</b> Factor a trinomial in the form $ax^2 + bx + c$ ; $a = 1$ and $c$ having no more than three sets of factors |
| DAY 11  | <b>Activity Lab:</b><br>p. 571 Finding Roots  |  | pp. 574-575:<br>ex. 25, 27, 31<br>Activity Lab<br>p. 571: ex: 1,2               | Activity Lab p. 571:<br>ex. 5, 6, 8<br><br>p. 575 ex 30, 32, 35, 37, 40<br><br>Mixed Review p. 576:<br>ex. 54-61                  |   |  |  |
| DAY 12  | Practice Solving Quadratic Equations          |  | GPS p. 574<br>ex. 33<br>Grab & Go<br>Chap 10<br>Practice 10–4<br>Reteachng 10–4 | Challenge p. 575:<br>ex. 44, 45<br><br>Test Prep pp. 575-576:<br>ex. 48-53<br><br>All-in-One Wkbk 10–4<br><br>TE Lesson Quiz 10–4 |   |  |  |

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|---|---|---|---|--|---|--|--|
| Lesson NY-6: <i>Systems of Linear and Quadratic Equations</i> |   |   |   |  |   |  |  |
| DAY 13  | <b>Part 1:</b><br>Solving Systems<br>Using Graphing             | How can we solve<br>a linear-quadratic<br>system<br>algebraically and<br>graphically? | To Solve a<br>Linear-Quadratic<br>System<br>Algebraically and<br>Graphically. | pp. NY 752-753:<br>Examples 1, 2<br>Quick Check 1, 2 | pp. NY 755-756<br>ex. 4, 6, 10, 12, 16, 19,<br>29<br><br>Challenge p. NY 757<br>ex. 45<br><br>Test Prep p. NY 757:<br>ex. 46-49 | <b>A.11</b> Solve a system of one<br>linear and one quadratic<br>equation in two variables<br>where only factoring is<br>required<br><br><b>G.9</b> Solve systems of linear<br>and quadratic equations<br>graphically. | <b>8.A.4</b> Create a graph given a description or an<br>expression for a situation involving a linear or<br>nonlinear relationship<br><br><b>8.G.18</b> Solve systems of equations graphically<br>(only linear, integral solutions, $y=mx+b$ format,<br>no vertical/horizontal lines) |
| DAY 14  | <b>Part 2:</b><br>Solving Systems<br>Using Algebraic<br>Methods |   |   | pp. NY 753-754:<br>Examples 3-6<br>Quick Check 3-6   | Ex. 32, 37, 41, 44<br><br>Mixed Review p. NY<br>757<br><br>Ex. 50, 51, 52, 54:<br><br>Challenge p. NY 757<br>ex. 47             |  |  |
| Lesson 10-5: <i>Completing the Square</i> (Optional)          |   |   |   |  |   |  |  |
| Lesson 10-6: <i>Using the Quadratic Formula</i> (Optional)    |   |   |   |  |   |  |  |

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|---|---|---|---|--|---|--|---|
| Lesson 10–7: <i>Using the Discriminant</i>  |   |   |   |  |   |  |   |
| DAY 15  | <b>Part 1:</b><br>Number of Real Solutions of a Quadratic Equation. | 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. | pp. 592–593: Examples 1, 2<br>Quick Check 1, 2<br>p. 594: ex. 1,4, 6, 7, 10, 11, 19, 20, 21<br>p. 594-595 ex. 16, 17, 26, 30 | p. 594 ex. 5, 8, 9, 12, 13, 22, 23, 24<br><br>pp. 594-595 ex. 18, 31, 33, 34<br><br>p. 595 ex. 25, 37, 42<br><br>Mixed Review p. 596: ex. 55-57 | <b>A.8</b> Analyze and solve verbal problems that involve quadratic equations. | <b>6.A.2</b> Use substitution to evaluate algebraic expressions (may include exponents of one, two and three) |
| DAY 16  | Finding numbers of real solutions                                   |   |   | GPS p. 594 ex 25<br>Grab & Go<br>Chap 10<br>Practice 10–7<br>Reteaching 10–7   | Test Prep: p. 595-596: ex. 43-47<br><br>All in One Wkbk 10–7<br><br>TE Lesson Quiz 10–7   |  |   |
| Lesson 10–8: <i>Choosing a Linear, Quadratic, or Exponential Model</i> (Optional) |   |   |   |  |   |  |   |

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|--|---|---|--|---|--|--|--|
| <b>CHAPTER 11: RADICAL EXPRESSIONS AND EQUATIONS</b> |   |   |  |   |  |  |  |
| Lesson 11–1: <i>Simplifying Radicals</i>             |   |   |  |   |  |  |  |
| DAY 17   | <b>Part 1:</b><br>Simplifying<br>Radical<br>Expressions<br>Involving Products     | How do we<br>simplify radical<br>expressions<br>involving<br>products?  | To Simplify<br>Radicals Involving<br>Products  | pp. 616-617<br>Examples 1-4<br>Quick Check 1-4<br><br>pp. 619-621:<br>ex. 1, 4, 5, 7, 8, 9,<br>54, 56, 69 | pp. 619-621: ex. 2, 3, 6,<br>10, 11, 12, 13, 14, 16,<br>21, 22, 24, 25, 26, 70, 72<br><br>pp. 619-620 ex. 15, 17,<br>18, 19, 20, 23, 27<br><br>Challenge p. 621:<br>ex. 75, 76 | <b>N.2</b> Simplify radical terms<br><br><b>N.3</b> Perform the four arithmetic operations using like and unlike terms | <b>7.N.4</b> Develop the laws of exponents for multiplication and division<br><br><b>7.N.15</b> Recognize and state the value of the square root of a perfect square (up to 225)<br><br><b>8.N.1</b> Develop and apply the laws of exponents for multiplication and division<br><br><b>8.A.6</b> Multiply and divide monomials |
| DAY 18   | <b>Part 2:</b><br>Simplifying<br>Radical<br>Expressions<br>Involving<br>Quotients | How do we<br>simplify radical<br>expressions<br>involving<br>quotients? | To Simplify<br>Radicals Involving<br>Quotients | pp. 618-619<br>Examples: 5-7<br>Quick Check 5-7<br>p. 620: ex. 28, 32,<br>36, 40, 44-47, 52,<br>53, 78    | p. 620: ex. 29, 33, 37, 41<br><br>p. 620: ex. 48-51, 59-62<br><br>Challenge p. 620:<br>ex. 77-78   |  |  |
| DAY 19   | Practice with<br>Radical<br>Expressions   | Simplifying<br>radical products<br>and quotients                        |  | GPS p. 620 ex. 74<br>Grab & Go<br>Chap 11<br>Practice 11–1<br>Reteaching 11–1                             | Mixed Review p. 628:<br>ex. 84-93<br><br>Test prep p. 621: 81, 83<br><br>TE Lesson Quiz 11–1   |  |  |

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|---|--|---|--|--|--|--|--|
| Lesson 11–2: <i>Operations with Radical Expressions</i>       |  |   |  |  |  |  |  |
| DAY 20  | <b>Part 1:</b><br>Simplifying Sums and Differences   | How do we simplify radical expressions of sums and differences?   | To Simplify Radicals Containing Sums and Differences   | pp. 622-623<br>Examples 1-2<br>Quick Check 1-2<br>p. 625: ex. 1, 3, 4, 7, 8, 10, 11, 14, 16, 18, 20, 48, 51<br>pp. 626-627<br>ex. 53, 54, 64, 66, 67 | p. 625: ex. 2, 5, 6, 12, 13, 15<br><br>pp. 625-626 ex. 17, 19, 21, 49, 50<br><br>Challenge pp. 626-627:<br>ex. 52, 65, 69, 70        | <b>N.2</b> Simplify radical terms<br><b>N.3</b> Perform the four arithmetic operations using like and unlike terms | <b>7.N.8</b> Find the common factors and greatest common factor of two or more numbers<br><b>7.N.15</b> Recognize and state the value of the square root of a perfect square (up to 225)<br><b>8.N.1</b> Develop and apply the laws of exponents for multiplication and division |
| DAY 21  | <b>Part 2:</b><br>Simplifying Products and Quotients | How do we simplify radical expressions of products and quotients? | To Simplify Radicals Containing Products and Quotients | pp. 623-624;<br>Examples 4-6<br>Quick Check 3-6<br>p. 625 ex. 22, 24, 26, 28, 30, 32, 34, 37, 42<br>pp. 625-627<br>ex. 47, 59, 66, 67                | p. 625: ex. 23, 25, 27<br><br>p. 625 ex. 29, 31, 33, 35, 36, 46<br><br>Challenge p. 627:<br>ex. 55-58, 65, 70                        |  |  |
| DAY 22  | Practice Simplifying Radical Expressions             |   |  | GPS p. 626 ex. 24<br>Grab & Go<br>Chap 11<br>Practice 11–2<br>Reteaching 11–2  | Mixed Review pp. 628:<br>ex. 76-96<br><br>Test prep p. 627: 72, 73<br><br>All-in-One Wkbk<br>Chapter 11–2<br><br>TE Lesson Quiz 11–2 |  |  |
| Lesson 11–3: <i>Solving Radical Equations (Optional)</i>      |  |   |  |  |  |  |  |
| Lesson 11–4: <i>Graphing Square Root Functions (Optional)</i> |  |   |  |  |  |  |  |

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|--|--|--|---|---|---|--|---|
| Lesson 11–5: <i>Trigonometric Ratios</i>   |  |  |   |   |   |  |   |
| DAY 23   | 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<br>Quick Check 1-3<br>p. 648 ex. 1-9<br>p. 648 ex. 15-17, 21, 22<br>pp. 648-649<br>ex. 26, 27 | p. 648: ex. 10-12<br>p. 648: ex. 18-20, 23, 24<br>Challenge 34-35   | <b>A.42</b> Find the sine, cosine, and tangent ratios of an angle of a right triangle, given the lengths of the sides.<br><br><b>A.44</b> Find the measure of a side of a right triangle, given an acute angle and the length of another side.   | <b>7.G.5</b> Identify the right angle, hypotenuse, and legs of a right triangle |
| DAY 24   | Practice with Trigonometric Ratios   |  |   | GPS p. 649 ex. 30<br>Grab & Go<br>Chap 11<br>Practice 11–5<br>Reteaching 11–5   | Mixed Review p. 649<br>ex. 39-50<br>Test prep p. 649: 36-38<br>All-in-One Wbk 11–5<br>TE Lesson Quiz 11–5 |  |   |
| Extension: <i>Finding Angles in Right Triangles</i> , p. 654<br>Lesson 11–6: <i>Angles of Elevation and Depression</i> |  |  |   |   |   |  |   |
| DAY 25   | <b>Extension:</b><br>Finding Angles in Right Triangles, p. 654                   | How do we determine the measure of angles in a right triangles given 2 sides?                                  | To Find the Measure of an Angle in a Right Triangle Using Trigonometric Ratios  | p. 654:<br>Example 1, 2<br>p. 648 ex. 10-12, 30   | pp. 654 ex. 3-6<br>pp. 647-649: ex. 28, 29, 32-33   | <b>A.42</b> Find the sine, cosine, and tangent ratios of an angle of a right triangle, given the lengths of the sides.<br><br><b>A.43</b> Determine the measure of an angle of a right triangle, given the length of any two sides of the triangle<br><br><b>A.44</b> Find the measure of a side of a right triangle, given an acute angle and the length of another side. |   |
| DAY 26   | <b>Part 1:</b><br>Solve Problems Using Angle of Elevation or Angle of Depression | 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 | pp. 650-651:<br>Examples 1, 2<br>Quick Check 1, 2<br>p. 652: ex. 1, 3, 5, 6, 8<br>p. 652 ex. 11, 12                     | pp. 652 ex. 5-7, 9, 19, 15, 20, 22, 30, 33<br>Mixed Review p. 653:<br>ex. 16-24                           |  |   |
| DAY 27   | Solve Problems Using Angle of Elevation or Angle of Depression                   |  |   | Grab & Go<br>Chap 11<br>Practice 11–6<br>Reteaching 11–6  | Test prep p. 653: ex. 13, 14, 15<br>All-in-One Workbook 11–6<br>TE Lesson Quiz 11–6                       |  |   |

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|--|--|--|--|---|---|--|---|
| <b>CHAPTER 12: RADICAL EXPRESSIONS AND FUNCTIONS</b>       |  |  |  |   |   |  |   |
| Lesson 12–1: <i>Graphing Rational Functions (Optional)</i> |  |  |  |   |   |  |   |
| Lesson 12–2: <i>Simplifying Rational Expressions</i>       |  |  |  |   |   |  |   |
| DAY 28   | <b>Part 1:</b><br>Simplifying<br>Rational<br>Expressions | How do we<br>simplify rational<br>expressions by<br>factoring them and<br>renaming them? | To Simplify<br>Rational<br>Expressions | pp. 672 – 673:<br>Examples 1, 2.<br>Quick Check 1, 2.<br><br>p. 674: ex. 1, 2, 3,<br>7, 9, 13<br><br>p. 675 ex. 35, 36,<br>37 | pp. 674-5 ex. 4, 5, 6, 8,<br>11, 14, 18, 32, 39<br><br>Challenge p. 675: ex.<br>42, 47<br><br>Test Prep pp. 675–676<br>ex. 48–52.                                       | <b>A.15</b> Find values of a vari-<br>able for which an algebraic<br>fraction is undefined.<br><br><b>A.16</b> Simplify fractions<br>with polynomials in the nu-<br>merator and denominator by<br>factoring both and renaming<br>them in lowest terms. | <b>7.N.1</b> Distinguish between the various subsets<br>of real numbers (counting/natural numbers,<br>whole numbers, integers, rational numbers, and<br>irrational numbers.)<br><br><b>8.A.10</b> Factor algebraic expressions using the<br>GCF<br><br><b>8.A.11</b> Factor a trinomial in the form<br>$ax^2+bx+c$ ; $a=1$ and $c$ having no more than three<br>sets of factors |
| DAY 29   | Practice<br>Simplifying<br>Rational<br>Expressions       |  |  | pp. 673 – 674:<br>Examples 3, 4.<br>Quick Check 3, 4.<br><br>p. 674 ex. 15, 16,<br>17, 23, 25<br><br>p. 675 ex. 38, 44        | p. 674 ex 19, 20, 24,<br>25-29<br><br>Challenge p. 675: ex.<br>43, 46<br><br>Mixed Review p. 676:<br>ex. 57, 60, 63, 68,69<br><br>Checkpoint Quiz 1 p.<br>676: ex. 3–5. |  |   |

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|---|--|--|----------------------------------|--|---|---|---|
| Lesson 12–3: <i>Multiplying and Dividing Rational Expressions</i> |  |  |                                  |  |   |   |   |
| DAY 30  | <b>Part 1:</b><br>Multiply Rational Expressions        | How do we multiply expressions and simplify them?        | To Multiply Rational Expressions | pp. 677-678<br>Examples 1-3<br>Quick Check 1-3<br><br>p. 679: ex. 1, 2, 3<br>p. 679 ex. 7, 9, 13, 29,<br>p. 679-680<br>ex. 41, 44      | p. 679 ex. 4, 5, 6<br><br>p. 679 ex. 10, 12, 14, 15, 36, 42, 46<br><br>Challenge p. 681:<br>ex. 47, 48<br><br>Mixed Review p. 681:<br>ex. 59-76<br><br>Test Prep pp. 681<br>ex. 54-58 | <b>A.18</b> Multiply and divide algebraic fractions and express the product or quotient in simplest form. | <b>8.A.6</b> Multiply and divide monomials<br><br><b>8.A.8</b> Multiply a binomial by a monomial or binomial (integer coefficients)<br><br><b>8.A.10</b> Factor algebraic expressions using the GCF<br><br><b>8.A.11</b> Factor a trinomial in the form $ax^2 + bx + c$ ; $a = 1$ and $c$ having no more than three sets of factors |
| DAY 31  | <b>Part 2:</b><br>Dividing Rational Expressions        | How do we divide rational expressions and simplify them? | To Divide Rational Expressions.  | p. 678<br>Examples 4, 5<br>Quick Check 4, 5<br><br>p. 679: ex. 16, 20, 23, 26<br>p. 679 ex. 30, 32<br>p. 680-681<br>ex. 37, 40, 51, 52 | p. 679 ex. 18, 21, 24, 27<br><br>p. 679 ex. 33<br><br>Challenge pp. 680-681:<br>ex. 39, 46, 49, 53, 56<br><br>Mixed Review p. 681:<br>ex. 65, 72, 76                                  |   |   |
| DAY 32  | Practice Multiplying and Dividing Rational Expressions |  |                                  | GPS p. 680 ex. 41<br>Grab & Go<br>Chap 12<br>Practice 12–3<br>Reteaching 12–3  | Test Prep p. 681<br>ex. 54-58<br><br>All-in-One Wkbk 12–3<br><br>TE Lesson Quiz 12–3  |   | <b>6.N.19</b> Identify the multiplicative inverse (reciprocal) of a number<br><br>Multiplication and division of fractions is a focus in Grade 6.   |

| PACING                                   | CHAPTER/<br>LESSON/<br>UNIT        | LESSON<br>AIM FOR<br>TOPIC  | OBJECTIVES<br>FOR AIM    | SUGGESTED<br>CLASSWORK  | SUGGESTED<br>HOMEWORK  | NYSED<br>CONTENT<br>STRAND   | TAUGHT IN MS<br>(PRE-REQUISITES)   |
|--|------------------------------------|---|--------------------------|---|--|--|--|
| Lesson 12–4: <i>Dividing Polynomials</i> |                                    |   |                          |   |  |  |  |
| DAY 33                                   | Part 1:<br>Dividing<br>Polynomials | How do we divide<br>a polynomial by<br>a monomial or a<br>binomial? | To Divide<br>Polynomials | pp. 682–684:<br>Examples 1-4<br>Quick Check 1-4<br><br>p. 684: ex. 1, 3,<br>5, 27<br>p. 684-685<br>ex. 7, 11, 13, 20,<br>21, 26, 31<br>p. 685 ex. 42, 45,<br>46, 47, 51 | pp. 684-685 ex. 2, 4, 6<br>pp. 684-685 ex. 8, 10,<br>14, 19, 22, 30, 39<br><br>Challenge p. 685: ex. 41,<br>43, 44, 48, 49<br><br>Mixed Review p. 686:<br>ex. 62-67, 68-72 | <b>A.14</b> Divide a polynomial<br>by a monomial or binomial,<br>where the quotient has no<br>remainder.<br><br><b>A.18</b> Multiply and divide<br>algebraic fractions and<br>express the product or quo-<br>tient in simplest form. | <b>8.A.9</b> Divide a polynomial by a monomial<br>(integer coefficients). Note: The degree of the<br>denominator is less than or equal to the degree<br>of the numerator for all variables |
| DAY 34                                   | Practice dividing<br>polynomials   |   |                          | GPS p. 685: ex. 42<br>Grab & Go<br>Chap 12<br>Practice 12–4<br>Reteaching 12–4  | Test Prep p. 686:<br>ex. 53-55<br><br>All-in-One Wkbk 12–4<br><br>TE Lesson Quiz 12–4  |  |  |

| PACING   | CHAPTER/<br>LESSON/<br>UNIT  | LESSON<br>AIM FOR<br>TOPIC   | OBJECTIVES<br>FOR AIM                                | SUGGESTED<br>CLASSWORK  | SUGGESTED<br>HOMEWORK   | NYSED<br>CONTENT<br>STRAND  | TAUGHT IN MS<br>(PRE-REQUISITES)  |
|--|--|--|--|---|---|---|---|
| Lesson 12–5: Adding and Subtracting Rational Expressions |  |  |  |   |   |   |   |
| DAY 35   | <b>Part 1:</b><br>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:<br>Examples 1, 2<br>Quick Check 1, 2<br><br>p. 689: ex. 1, 4, 7, 10<br>p. 690: ex. 30, 33,                 | p. 689: ex. 2, 5, 8, 9, 11<br>p. 690: ex. 31, 32, 36<br><br>Mixed Review p. 691:<br>ex. 59, 60, 64-66<br><br>Test Prep p. 691: ex. 55 | <b>A.17</b> Add or subtract fractional expressions with monomial or like binomial denominators. | <b>6.N.3</b> Define and identify the distributive property of multiplication over addition<br><b>7.N.9</b> Determine multiples and least common multiple of two or more numbers<br><b>8.A.7</b> Add and subtract polynomials (integer coefficients)<br><b>8.A.11</b> Factor a trinomial in the form $ax^2 + bx + c$ ; $a = 1$ and $c$ having no more than three sets of factors |
| DAY 36   | <b>Part 2:</b><br>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:<br>Examples 3-5<br>Quick Check 3-5<br><br>p. 689: ex. 13, 14, 17, 18, 20<br>p. 690: ex. 23, 24, 26, 34, 35 | p. 689 ex. 15, 16, 19, 21, 22<br><br>p. 690 ex. 25, 27, 28, 36, 37, 38, 39<br><br>Challenge p. 690:<br>ex. 51-54                      |   |   |
| DAY 37   | Practice Adding and Subtracting Rational Expressions                                   |  |  | GPS p. 690: ex. 42<br>Grab & Go<br>Chap 12<br>Practice 12–5<br>Reteaching 12–5  | Test Prep p. 691:<br>ex. 55-58<br><br>All-in-One Wkbk 12–5<br><br>TE Lesson Quiz 12–5   |   |   |

| PACING                                  | CHAPTER/<br>LESSON/<br>UNIT                       | LESSON<br>AIM FOR<br>TOPIC                                 | OBJECTIVES<br>FOR AIM                                   | SUGGESTED<br>CLASSWORK  | SUGGESTED<br>HOMEWORK   | NYSED<br>CONTENT<br>STRAND   | TAUGHT IN MS<br>(PRE-REQUISITES)   |
|---|---|--|---|---|---|--|--|
| Lesson 12–6: Solving Rational Equations |   |  |   |   |   |  |  |
| DAY 38                                  | <b>Part 1:</b><br>Solving Rational Equations      | How do we solve equations containing rational expressions? | To Solve Rational Equations<br><br>To Solve Proportions | pp. 692-693:<br>Examples 1-3<br>Quick Check 1-3<br><br>p. 695: ex. 1, 4, 7, 10, 13, 32, | p.695: ex. 2, 5, 8, 11, 14<br><br>p. 695 ex. 17, 24, 36<br><br>Challenge p. 696: ex. 42, 43, 45 | <b>A.20</b> Factor algebraic expressions completely, including trinomials with a lead coefficient of one.<br><br><b>A.26</b> Solve algebraic proportions in one variable which result in linear or quadratic equations | <b>6.N.9</b> Solve proportions using equivalent fractions<br><br><b>7.N.9</b> Determine multiples and least common multiple of two or more numbers<br><br><b>8.A.11</b> Factor a trinomial in the form $ax^2 + bx + c$ ; $a = 1$ and $c$ having no more than three sets of factors |
| DAY 39                                  | <b>Part 2:</b><br>Solving Proportions             | How do we solve proportions?                               | To solve proportions.                                   | p. 694:<br>Examples 4, 5<br>Quick Check 4, 5<br><br>p. 695: ex. 18, 21, 33, 40          | p. 695 ex. 22-23<br><br>Challenge p. 696:<br>ex. 46-48<br><br>Mixed Review p. 697<br>ex. 53-67  |  |  |
| DAY 40                                  | Practice with rational equations and proportions. |  |   | GPS p. 696 ex 38<br>Grab & Go<br>Chap 12<br>Practice 12–6<br>Reteaching 12–6            | Test Prep p. 697:<br>ex. 49-51<br><br>All-in-One Wkbk 12–6<br><br>TE Lesson Quiz 12–6           |  |  |

| PACING  | CHAPTER/<br>LESSON/<br>UNIT   | LESSON<br>AIM FOR<br>TOPIC  | OBJECTIVES<br>FOR AIM   | SUGGESTED<br>CLASSWORK   | SUGGESTED<br>HOMEWORK  | NYSED<br>CONTENT<br>STRAND  | TAUGHT IN MS<br>(PRE-REQUISITES)  |
|---|---|---|---|--|--|---|---|
| Lesson 12–7: <i>Counting Methods and Permutations</i> |   |   |   |  |  |   |   |
| DAY 41  | <b>Part 1:</b><br>Using the<br>Multiplication<br>Counting Principle | How can we use<br>the multiplication<br>counting<br>principle?                | Using the<br>Multiplication<br>Counting Principle                 | pp. 699-700:<br>Examples 1, 2<br>Quick Check 1, 2<br>p. 702: ex. 1, 3  | p. 702: ex. 2, 4, 27<br>p. 703: ex. 21<br><br>Challenge p. 705: ex. 32   | <b>N.7</b> Determine the number<br>of possible events, using<br>counting techniques | <b>6.S.11</b> Determine the number of possible<br>outcomes for a compound event by using the<br>fundamental counting principle and use this to<br>determine the probabilities of events when the<br>outcomes have equal probability |
| DAY 42  | <b>Part 2:</b><br>Finding<br>Permutations                           | How do we find<br>the number of<br>permutations of<br>objects in a set?       | Finding<br>Permutations   | pp. 701-702:<br>Examples 3-5<br>Quick Check 3-5<br><br>p. 702-703:<br>ex. 7, 8, 10, 17, 18<br>pp. 703-705<br>ex. 15, 20, 21, 29,<br>31, 39 | p. 703 ex. 11, 12, 13,<br>14, 19<br><br>p. 703-704 ex. 28, 30, 31<br><br>Challenge p. 705:<br>ex. 33-35          | <b>N.8</b> Determine the number<br>of possible arrangements<br>(permutations)       |   |
| DAY 43  | Practice  | How can we<br>practice with<br>permutations<br>and the counting<br>principle? | To practice with<br>permutations<br>and the counting<br>principle | pp. 703-705<br>ex. 27, 28, 29, 34<br>Grab & Go<br>Chap 12<br>Practice 12–7<br>Reteaching 12–7  | Mixed Review p. 704:<br>ex. 40-55<br><br>Test Prep ex. 39<br><br>All in One Wkbk 12–7<br><br>TE Lesson Quiz 12–7 |   |   |

| PACING                           | CHAPTER/<br>LESSON/<br>UNIT                            | LESSON<br>AIM FOR<br>TOPIC   | OBJECTIVES<br>FOR AIM   | SUGGESTED<br>CLASSWORK  | SUGGESTED<br>HOMEWORK  | NYSED<br>CONTENT<br>STRAND  | TAUGHT IN MS<br>(PRE-REQUISITES) |
|----------------------------------|--|--|---|---|--|---|----------------------------------|
| Lesson 12–8: <i>Combinations</i> |  |  |   |   |  |   |                                  |
| DAY 44                           | <b>Part 1:</b><br>Combinations                         | How do we find the number of combinations of objects in a set?             | To Find the Number of Combinations                                  | pp. 706-707:<br>Examples 1, 2<br>Quick Check 1, 2<br><br>p. 709 ex. 1, 2, 6, 16, 17, 20, 21 | p. 709: ex. 1, 2, 6, 16, 17, 20, 21<br><br>pp. 709-710: ex. 11, 22, 26<br><br>Challenge p. 710:<br>ex. 31-33 | <b>N.8</b> Determine the number of possible arrangements (permutations) |                                  |
| DAY 45                           | <b>Part 1:</b><br>Probability with Counting Techniques | How do we use permutations and combinations to solve probability problems? | To Use Permutations and Combinations to Solve Probability Problems. | pp. 708:<br>Example 3<br>Quick Check 3<br><br>p. 709 ex. 13, 15                             | p. 709 ex. 14, 24,<br><br>p. 710 ex. 28<br><br>p. 710 ex. 31-33<br><br>Mixed Review p. 711:<br>ex. 41-58     |   |                                  |
| DAY 46                           | Practice with Permutations and Combinations            |  |   | GPS p. 710 ex. 24<br>Grab & Go<br>Chap 12<br>Practice 12–8<br>Reteaching 12–8               | Test Prep p. 711:<br>ex. 53-58<br><br>All-in-One Wkbk 12–8<br><br>TE Lesson Quiz 12–8                        |   |                                  |

The rest of the term can be spent reviewing the entire two-year course using the New York Brief Review for Integrated Algebra.

After assessing students with the Diagnostic Tests in the Brief Review, they can be placed into study groups to help one other.