

## Grade 7 Math

### Course Lesson Plan: 34 weeks

Welcome to Thinkwell's 7<sup>th</sup> Grade Math! We're thrilled that you've decided to make us part of your homeschool curriculum. This lesson plan is meant to be a guide for you and your homeschool student. Each day, you'll tackle a different topic and all the materials associated with that topic, such as video lectures, worksheets, exercises, and interactivities. If you follow our day-by-day schedule, you'll complete the full curriculum for the course in 34 weeks. Feel free to modify and amend the plan as it best works for you. And, as always, please [let us know](#) what we can do to help you get you up and running with Thinkwell's 7th Grade Math!

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| <b>Week 1</b>                                 |       |
| Chapter 1: Algebraic Reasoning                |       |
| Assignments                                   | Notes |
| <b><u>Week 1, Day 1</u></b>                   |       |
| 1.1.1 Numbers and Patterns                    |       |
| <b><u>Week 1, Day 2</u></b>                   |       |
| 1.1.2 Exponents                               |       |
| <b><u>Week 1, Day 3</u></b>                   |       |
| 1.1.3 Applying Exponents: Scientific Notation |       |
| <b><u>Week 1, Day 4</u></b>                   |       |
| 1.1.4 Order of Operations                     |       |
| <b><u>Week 1, Day 5</u></b>                   |       |
| 1.1.5 Properties                              |       |

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| <b>Week 2</b>                             |       |
| Chapter 1: Algebraic Reasoning            |       |
| Assignments                               | Notes |
| <b><u>Week 2, Day 1</u></b>               |       |
| Subchapter 1.1 Worksheet, Part I          |       |
| <b><u>Week 2, Day 2</u></b>               |       |
| Subchapter 1.1 Worksheet, Part II         |       |
| <b><u>Week 2, Day 3</u></b>               |       |
| 1.2.1 Variables and Algebraic Expressions |       |
| <b><u>Week 2, Day 4</u></b>               |       |
| 1.2.2 Translate Words into Math           |       |
| <b><u>Week 2, Day 5</u></b>               |       |
| 1.2.3 Simplifying Algebraic Expressions   |       |

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| <b>Week 3</b>                       |       |
| Chapter 1: Algebraic Reasoning      |       |
| Assignments                         | Notes |
| <b><u>Week 3, Day 1</u></b>         |       |
| 1.2.4 Equations and Their Solutions |       |

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| <b><u>Week 3, Day 2</u></b><br>1.2.5 Addition and Subtraction Equations    |  |
| <b><u>Week 3, Day 3</u></b><br>1.2.6 Multiplication and Division Equations |  |
| <b><u>Week 3, Day 4</u></b><br>Subchapter 1.2 Worksheet, Part I            |  |
| <b><u>Week 3, Day 5</u></b><br>Subchapter 1.2 Worksheet, Part II           |  |

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| <b>Week 4</b><br>Chapter 1 Test<br>Chapter 2: Integers and Rational Numbers |                                |
| Assignments   | Notes                          |
| <b><u>Week 4, Day 1</u></b><br>Chapter 1 Practice Test                      |                                |
| <b><u>Week 4, Day 2</u></b><br>Chapter 1 Test                               | Chapter 1 Test<br>Score: _____ |
| <b><u>Week 4, Day 3</u></b><br>2.1.1 Integers                               |                                |
| <b><u>Week 4, Day 4</u></b><br>2.1.2 Adding Integers                        |                                |
| <b><u>Week 4, Day 5</u></b><br>2.1.3 Subtracting Integers                   |                                |

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| <b>Week 5</b><br>Chapter 2: Integers and Rational Numbers                  |       |
| Assignments  | Notes |
| <b><u>Week 5, Day 1</u></b><br>2.1.4 Multiplying and Dividing Integers     |       |
| <b><u>Week 5, Day 2</u></b><br>2.1.5 Solving Equations Containing Integers |       |
| <b><u>Week 5, Day 3</u></b><br>Subchapter 2.1 Worksheet, Part I            |       |
| <b><u>Week 5, Day 4</u></b><br>Subchapter 2.1 Worksheet, Part II           |       |
| <b><u>Week 5, Day 5</u></b><br>2.2.1 Prime Factorization                   |       |

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| <b>Week 6</b><br>Chapter 2: Integers and Rational Numbers   |       |
| Assignments   | Notes |
| <b><u>Week 6, Day 1</u></b><br>2.2.2 Greatest Common Factor |       |

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| <b>Week 6, Day 2</b><br>2.2.3 Least Common Multiple                  |  |
| <b>Week 6, Day 3</b><br>Subchapter 2.2 Worksheet                     |  |
| <b>Week 6, Day 4</b><br>2.3.1 Equivalent Fractions and Mixed Numbers |  |
| <b>Week 6, Day 5</b><br>2.3.2 Equivalent Fractions and Decimals      |  |

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| <b>Week 7</b><br>Chapter 2: Integers and Rational Numbers<br>Chapter 2 Test |                                |
| Assignments   | Notes                          |
| <b>Week 7, Day 1</b><br>2.3.3 Comparing and Ordering Rational Numbers       |                                |
| <b>Week 7, Day 2</b><br>Subchapter 2.3 Worksheet, Part I                    |                                |
| <b>Week 7, Day 3</b><br>Subchapter 2.3 Worksheet, Part II                   |                                |
| <b>Week 7, Day 4</b><br>Chapter 2 Practice Test                             |                                |
| <b>Week 7, Day 5</b><br>Chapter 2 Test                                      | Chapter 2 Test<br>Score: _____ |

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| <b>Week 8</b><br>Chapter 3: Operations with Rational Numbers     |       |
| Assignments  | Notes |
| <b>Week 8, Day 1</b><br>3.1.1 Rounding and Estimating Decimals   |       |
| <b>Week 8, Day 2</b><br>3.1.2 Adding and Subtracting Decimals    |       |
| <b>Week 8, Day 3</b><br>3.1.3 Multiplying Decimals               |       |
| <b>Week 8, Day 4</b><br>3.1.4 Dividing Decimals by Whole Numbers |       |
| <b>Week 8, Day 5</b><br>3.1.5 Dividing Decimals                  |       |

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| <b>Week 9</b><br>Chapter 3: Operations with Rational Numbers |       |
| Assignments  | Notes |
| <b>Week 9, Day 1</b><br>Subchapter 3.1 Worksheet             |       |

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| <b>Week 9, Day 2</b><br>3.2.1 Estimating Fraction Sums and Differences           |  |
| <b>Week 9, Day 3</b><br>3.2.2 Multiplying Fractions and Mixed Numbers            |  |
| <b>Week 9, Day 4</b><br>3.2.3 Dividing Fractions and Mixed Numbers               |  |
| <b>Week 9, Day 5</b><br>3.2.4 Adding and Subtracting Fractions and Mixed Numbers |  |

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| <b>Week 10</b><br>Chapter 3: Operations with Rational Numbers<br>Chapter 3 Test<br>Chapter 4: Proportional Relationships |                                |
| Assignments  | Notes                          |
| <b>Week 10, Day 1</b><br>3.2.5 Solving Equations with Rational Numbers   |                                |
| <b>Week 10, Day 2</b><br>Subchapter 3.2 Worksheet  |                                |
| <b>Week 10, Day 3</b><br>Chapter 3 Practice Test   |                                |
| <b>Week 10, Day 4</b><br>Chapter 3 Test  | Chapter 3 Test<br>Score: _____ |
| <b>Week 10, Day 5</b><br>4.1.1 Ratios  |                                |

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| <b>Week 11</b><br>Chapter 4: Proportional Relationships            |       |
| Assignments  | Notes |
| <b>Week 11, Day 1</b><br>4.1.2 Rates                               |       |
| <b>Week 11, Day 2</b><br>4.1.3 Identifying and Writing Proportions |       |
| <b>Week 11, Day 3</b><br>4.1.4 Solving Proportions                 |       |
| <b>Week 11, Day 4</b><br>Subchapter 4.1 Worksheet                  |       |
| <b>Week 11, Day 5</b><br>4.2.1 Customary Measurement               |       |

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| <b>Week 12</b><br>Chapter 4: Proportional Relationships |       |
| Assignments   | Notes |
| <b>Week 12, Day 1</b><br>4.2.2 Metric Measurements      |       |

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| <b>Week 12, Day 2</b><br>4.2.3 Dimensional Analysis            |  |
| <b>Week 12, Day 3</b><br>4.2.4 Similar Figures and Proportions |  |
| <b>Week 12, Day 4</b><br>4.2.5 Using Similar Figures           |  |
| <b>Week 12, Day 5</b><br>4.2.6 Scale Drawings and Scale Models |  |

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| <b>Week 13</b><br>Chapter 4: Proportional Relationships<br>Chapter 4 Test<br>Chapter 5: Graphs and Functions |                                |
| Assignments  | Notes                          |
| <b>Week 13, Day 1</b><br>Subchapter 4.2 Worksheet  |                                |
| <b>Week 13, Day 2</b><br>Chapter 4 Practice Test   |                                |
| <b>Week 13, Day 3</b><br>Chapter 4 Test  | Chapter 4 Test<br>Score: _____ |
| <b>Week 13, Day 4</b><br>5.1.1 The Coordinate Plane  |                                |
| <b>Week 13, Day 5</b><br>5.1.2 Tables and Graphs   |                                |

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| <b>Week 14</b><br>Chapter 5: Graphs and Functions            |       |
| Assignments  | Notes |
| <b>Week 14, Day 1</b><br>5.1.3 Interpreting Graphs           |       |
| <b>Week 14, Day 2</b><br>5.1.4 Functions, Tables, and Graphs |       |
| <b>Week 14, Day 3</b><br>5.1.5 Find the Pattern in Sequences |       |
| <b>Week 14, Day 4</b><br>Subchapter 5.1 Worksheet            |       |
| <b>Week 14, Day 5</b><br>5.2.1 Graphing Linear Functions     |       |

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| <b>Week 15</b><br>Chapter 5: Graphs and Functions         |       |
| Assignments   | Notes |
| <b>Week 15, Day 1</b><br>5.2.2 Slopes and Rates of Change |       |

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| <b>Week 15, Day 2</b><br>5.2.3 Slope-Intercept Form |  |
| <b>Week 15, Day 3</b><br>5.2.4 Direct Variation     |  |
| <b>Week 15, Day 4</b><br>5.2.5 Inverse Variation    |  |
| <b>Week 15, Day 5</b><br>Subchapter 5.2 Worksheet   |  |

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| <b>Week 16</b><br>Chapter 5 Test<br>Chapter 6: Percents          |                                |
| Assignments  | Notes                          |
| <b>Week 16, Day 1</b><br>Chapter 5 Practice Test                 |                                |
| <b>Week 16, Day 2</b><br>Chapter 5 Test                          | Chapter 5 Test<br>Score: _____ |
| <b>Week 16, Day 3</b><br>6.1.1 Percents                          |                                |
| <b>Week 16, Day 4</b><br>6.1.2 Percents, Decimals, and Fractions |                                |
| <b>Week 16, Day 5</b><br>6.1.3 Estimating with Percents          |                                |

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| <b>Week 17</b><br>Chapter 6: Percents                                     |       |
| Assignments   | Notes |
| <b>Week 17, Day 1</b><br>6.1.4 Finding Percents                           |       |
| <b>Week 17, Day 2</b><br>Subchapter 6.1 Worksheet                         |       |
| <b>Week 17, Day 3</b><br>6.2.1 Finding a Number When the Percent is Known |       |
| <b>Week 17, Day 4</b><br>6.2.2 Percent Increase and Decrease              |       |
| <b>Week 17, Day 5</b><br>6.2.3 Simple Interest                            |       |

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| <b>Week 18</b><br>Chapter 6: Percents<br>Chapter 6 Test<br>Midterm Exam |                                |
| Assignments   | Notes                          |
| <b><u>Week 18, Day 1</u></b><br>Subchapter 6.2 Worksheet                |                                |
| <b><u>Week 18, Day 2</u></b><br>Chapter 6 Practice Test                 |                                |
| <b><u>Week 18, Day 3</u></b><br>Chapter 6 Test                          | Chapter 6 Test<br>Score: _____ |
| <b><u>Week 18, Day 4</u></b><br>Practice Midterm Exam                   |                                |
| <b><u>Week 18, Day 5</u></b><br>Midterm Exam                            | Midterm Exam<br>Score: _____   |

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| <b>Week 19</b><br>Chapter 7: Data   |       |
| Assignments   | Notes |
| <b><u>Week 19, Day 1</u></b><br>7.1.1 Frequency Tables, Stem-and-Leaf Plots, and Line Plots |       |
| <b><u>Week 19, Day 2</u></b><br>7.1.2 Mean, Median, Mode, and Range                         |       |
| <b><u>Week 19, Day 3</u></b><br>7.1.3 Bar Graphs and Histograms                             |       |
| <b><u>Week 19, Day 4</u></b><br>7.1.4 Reading and Interpreting Circle Graphs                |       |
| <b><u>Week 19, Day 5</u></b><br>7.1.5 Box-and-Whisker Plots                                 |       |

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| <b>Week 20</b><br>Chapter 7: Data                                     |       |
| Assignments   | Notes |
| <b><u>Week 20, Day 1</u></b><br>Subchapter 7.1 Worksheet              |       |
| <b><u>Week 20, Day 2</u></b><br>7.2.1 Line Graphs                     |       |
| <b><u>Week 20, Day 3</u></b><br>7.2.2 Choosing an Appropriate Display |       |
| <b><u>Week 20, Day 4</u></b><br>7.2.3 Populations and Samples         |       |
| <b><u>Week 20, Day 5</u></b><br>7.2.4 Scatter Plots                   |       |

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| <b>Week 21</b><br>Chapter 7: Data<br>Chapter 7 Test<br>Chapter 8: Geometric Figures |                                |
| Assignments   | Notes                          |
| <b><u>Week 21, Day 1</u></b><br>7.2.5 Misleading Graphs                             |                                |
| <b><u>Week 21, Day 2</u></b><br>Subchapter 7.2 Worksheet                            |                                |
| <b><u>Week 21, Day 3</u></b><br>Chapter 7 Practice Test                             |                                |
| <b><u>Week 21, Day 4</u></b><br>Chapter 7 Test                                      | Chapter 7 Test<br>Score: _____ |
| <b><u>Week 21, Day 5</u></b><br>8.1.1 Points, Lines, and Planes                     |                                |

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| <b>Week 22</b><br>Chapter 8: Geometric Figures                       |       |
| Assignments  | Notes |
| <b><u>Week 22, Day 1</u></b><br>8.1.2 Angles and Their Relationships |       |
| <b><u>Week 22, Day 2</u></b><br>8.1.3 Geometric Relationships        |       |
| <b><u>Week 22, Day 3</u></b><br>Subchapter 8.1 Worksheet             |       |
| <b><u>Week 22, Day 4</u></b><br>8.2.1 Classifying Polygons           |       |
| <b><u>Week 22, Day 5</u></b><br>8.2.2 Classifying Triangles          |       |

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| <b>Week 23</b><br>Chapter 8: Geometric Figures                                 |       |
| Assignments  | Notes |
| <b><u>Week 23, Day 1</u></b><br>8.2.3 Classifying Quadrilaterals               |       |
| <b><u>Week 23, Day 2</u></b><br>8.2.4 Angles in Polygons                       |       |
| <b><u>Week 23, Day 3</u></b><br>Subchapter 8.2 Worksheet                       |       |
| <b><u>Week 23, Day 4</u></b><br>8.3.1 Congruent Figures                        |       |
| <b><u>Week 23, Day 5</u></b><br>8.3.2 Translations, Reflections, and Rotations |       |

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| <b>Week 24</b><br>Chapter 8: Geometric Figures<br>Chapter 8 Test |                                |
| Assignments  | Notes                          |
| <b><u>Week 24, Day 1</u></b><br>8.3.3 Dilations                  |                                |
| <b><u>Week 24, Day 2</u></b><br>8.3.4 Symmetry                   |                                |
| <b><u>Week 24, Day 3</u></b><br>Subchapter 8.3 Worksheet         |                                |
| <b><u>Week 24, Day 4</u></b><br>Chapter 8 Practice Test          |                                |
| <b><u>Week 24, Day 5</u></b><br>Chapter 8 Test                   | Chapter 8 Test<br>Score: _____ |

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| <b>Week 25</b><br>Chapter 9: Measurement: Two-Dimensional Figures      |       |
| Assignments  | Notes |
| <b><u>Week 25, Day 1</u></b><br>9.1.1 Accuracy and Precision           |       |
| <b><u>Week 25, Day 2</u></b><br>9.1.2 Perimeter and Circumference      |       |
| <b><u>Week 25, Day 3</u></b><br>9.1.3 Area of Parallelograms           |       |
| <b><u>Week 25, Day 4</u></b><br>9.1.4 Area of Triangles and Trapezoids |       |
| <b><u>Week 25, Day 5</u></b><br>9.1.5 Area of Circles                  |       |

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| <b>Week 26</b><br>Chapter 9: Measurement: Two-Dimensional Figures |       |
| Assignments   | Notes |
| <b><u>Week 26, Day 1</u></b><br>9.1.6 Area of Irregular Figures   |       |
| <b><u>Week 26, Day 2</u></b><br>Subchapter 9.1 Worksheet, Part I  |       |
| <b><u>Week 26, Day 3</u></b><br>Subchapter 9.1 Worksheet, Part II |       |
| <b><u>Week 26, Day 4</u></b><br>9.2.1 Squares and Square Roots    |       |
| <b><u>Week 26, Day 5</u></b><br>9.2.2 The Pythagorean Theorem     |       |

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| <b>Week 27</b><br>Chapter 9 Test<br>Chapter 10: Measurement: Three-Dimensional Figures |                                |
| Assignments  | Notes                          |
| <b><u>Week 27, Day 1</u></b><br>Subchapter 9.2 Worksheet                               |                                |
| <b><u>Week 27, Day 2</u></b><br>Chapter 9 Practice Test                                |                                |
| <b><u>Week 27, Day 3</u></b><br>Chapter 9 Test   | Chapter 9 Test<br>Score: _____ |
| <b><u>Week 27, Day 4</u></b><br>10.1.1 Introduction to Three-Dimensional Figures       |                                |
| <b><u>Week 27, Day 5</u></b><br>10.1.2 Volume of Prisms and Cylinders                  |                                |

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| <b>Week 28</b><br>Chapter 10: Measurement: Three-Dimensional Figures        |       |
| Assignments   | Notes |
| <b><u>Week 28, Day 1</u></b><br>10.1.3 Volume of Pyramids and Cones         |       |
| <b><u>Week 28, Day 2</u></b><br>Subchapter 10.1 Worksheet                   |       |
| <b><u>Week 28, Day 3</u></b><br>10.2.1 Surface Area of Prisms and Cylinders |       |
| <b><u>Week 28, Day 4</u></b><br>10.2.2 Surface Area of Pyramids and Cones   |       |
| <b><u>Week 28, Day 5</u></b><br>10.2.3 Changing Dimensions                  |       |

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| <b>Week 29</b><br>Chapter 10 Test<br>Chapter 11: Probability    |                                |
| Assignments   | Notes                          |
| <b><u>Week 29, Day 1</u></b><br>Subchapter 10.2 Worksheet       |                                |
| <b><u>Week 29, Day 2</u></b><br>Chapter 10 Practice Test        |                                |
| <b><u>Week 29, Day 3</u></b><br>Chapter 10 Test                 | Chapter 10<br>Test Score: ____ |
| <b><u>Week 29, Day 4</u></b><br>11.1.1 Probability              |                                |
| <b><u>Week 29, Day 5</u></b><br>11.1.2 Experimental Probability |                                |

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| <b>Week 30</b><br>Chapter 11: Probability  |       |
| Assignments  | Notes |
| <b><u>Week 30, Day 1</u></b><br>11.1.3 Make a List to Find Sample Spaces               |       |
| <b><u>Week 30, Day 2</u></b><br>11.1.4 Theoretical Probability                         |       |
| <b><u>Week 30, Day 3</u></b><br>Subchapter 11.1 Worksheet                              |       |
| <b><u>Week 30, Day 4</u></b><br>11.2.1 Making Predictions                              |       |
| <b><u>Week 30, Day 5</u></b><br>11.2.2 Probability of Independent and Dependent Events |       |

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| <b>Week 31</b><br>Chapter 11: Probability<br>Chapter 11 Test |                                |
| Assignments  | Notes                          |
| <b><u>Week 31, Day 1</u></b><br>11.2.3 Combinations          |                                |
| <b><u>Week 31, Day 2</u></b><br>11.2.4 Permutations          |                                |
| <b><u>Week 31, Day 3</u></b><br>Subchapter 11.2 Worksheet    |                                |
| <b><u>Week 31, Day 4</u></b><br>Chapter 11 Practice Test     |                                |
| <b><u>Week 31, Day 5</u></b><br>Chapter 11 Test              | Chapter 11<br>Test Score: ____ |

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| <b>Week 32</b><br>Chapter 12: Multi-Step Equations and Inequalities                   |       |
| Assignments   | Notes |
| <b><u>Week 32, Day 1</u></b><br>12.1.1 Solving Two-Step Equations                     |       |
| <b><u>Week 32, Day 2</u></b><br>12.1.2 Solving Multi-Step Equations                   |       |
| <b><u>Week 32, Day 3</u></b><br>12.1.3 Solving Equations with Variables on Both Sides |       |
| <b><u>Week 32, Day 4</u></b><br>Subchapter 12.1 Worksheet                             |       |
| <b><u>Week 32, Day 5</u></b><br>12.2.1 Inequalities                                   |       |

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| <b>Week 33</b><br>Chapter 12: Multi-Step Equations and Inequalities                    |       |
| Assignments  | Notes |
| <b><u>Week 33, Day 1</u></b><br>12.2.2 Solving Inequalities by Adding or Subtracting   |       |
| <b><u>Week 33, Day 2</u></b><br>12.2.3 Solving Inequalities by Multiplying or Dividing |       |
| <b><u>Week 33, Day 3</u></b><br>12.2.4 Solving Two-Step Inequalities                   |       |
| <b><u>Week 33, Day 4</u></b><br>Subchapter 12.2 Worksheet                              |       |
| <b><u>Week 33, Day 5</u></b><br>Chapter 12 Practice Test                               |       |

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| <b>Week 34</b><br>Chapter 12: Multi-Step Equations and Inequalities |                                |
| Assignments   | Notes                          |
| <b><u>Week 34, Day 1</u></b><br>Chapter 12 Test                     | Chapter 12<br>Test Score: ____ |
| <b><u>Week 34, Day 2</u></b><br>Study for Final Exam                |                                |
| <b><u>Week 34, Day 3</u></b><br>Study for Final Exam                |                                |
| <b><u>Week 34, Day 4</u></b><br>Practice Final Exam                 |                                |
| <b><u>Week 34, Day 5</u></b><br>Final Exam                          | Final Exam<br>Score: _____     |