

Thinkwell's Homeschool Algebra 1

Course Lesson Plan: 34 weeks

Welcome to Thinkwell's Homeschool Algebra 1! 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 Algebra 1!

Week 1	
Chapter 1: Foundations for Algebra	
Assignments	Notes
Week 1, Day 1 1.1.1 Variables and Expressions	
Week 1, Day 2 1.1.2 Adding and Subtracting Real Numbers	
Week 1, Day 3 1.1.3 Multiplying and Dividing Real Numbers	
Week 1, Day 4 1.1.4 Powers and Exponents	
Week 1, Day 5 1.1.5 Square Roots and Real Numbers	

Week 2	
Chapter 1: Foundations for Algebra	
Assignments	Notes
Week 2, Day 1 Subchapter 1.1 Worksheet, Part I	
Week 2, Day 2 Subchapter 1.1 Worksheet, Part II	
Week 2, Day 3 1.2.1 Set Theory	
Week 2, Day 4 1.2.2 Order of Operations	
Week 2, Day 5 1.2.3 Simplifying Expressions	

Week 3 Chapter 1: Foundations for Algebra Chapter 1 Test	
Assignments	Notes
<u>Week 3, Day 1</u> 1.2.4 Introduction to Functions	
<u>Week 3, Day 2</u> Subchapter 1.2 Worksheet, Part I	
<u>Week 3, Day 3</u> Subchapter 1.2 Worksheet, Part II	
<u>Week 3, Day 4</u> Chapter 1 Practice Test	
<u>Week 3, Day 5</u> Chapter 1 Test	Chapter 1 Test Score: _____

Week 4 Chapter 2: Equations, Proportions, and Percent	
Assignments	Notes
<u>Week 4, Day 1</u> 2.1.1 Addition and Subtraction Equations	
<u>Week 4, Day 2</u> 2.1.2 Multiplication and Division Equations	
<u>Week 4, Day 3</u> 2.1.3 Solving Two-Step Equations	
<u>Week 4, Day 4</u> 2.1.4 Solving Multi-Step Equations	
<u>Week 4, Day 5</u> 2.1.5 Solving Equations with Variables on Both Sides	

Week 5 Chapter 2: Equations, Proportions, and Percent	
Assignments	Notes
<u>Week 5, Day 1</u> 2.1.6 Solving Literal Equations	
<u>Week 5, Day 2</u> 2.1.7 Solving Absolute-Value Equations	
<u>Week 5, Day 3</u> Subchapter 2.1 Worksheet, Part I	
<u>Week 5, Day 4</u> Subchapter 2.1 Worksheet, Part II	
<u>Week 5, Day 5</u> 2.2.1 Rates, Ratios, and Proportions	

Week 6 Chapter 2: Equations, Proportions, and Percent	
Assignments	Notes
<u>Week 6, Day 1</u> 2.2.2 Applications of Proportion	
<u>Week 6, Day 2</u> 2.2.3 Percents	
<u>Week 6, Day 3</u> 2.2.4 Applications of Percents	
<u>Week 6, Day 4</u> 2.2.5 Percent Increase and Decrease	
<u>Week 6, Day 5</u> Subchapter 2.2 Worksheet, Part I	

Week 7 Chapter 2: Equations, Proportions, and Percent Chapter 2 Test Chapter 3: Inequalities	
Assignments	Notes
<u>Week 7, Day 1</u> Subchapter 2.2 Worksheet, Part II	
<u>Week 7, Day 2</u> Chapter 2 Practice Test	
<u>Week 7, Day 3</u> Chapter 2 Test	Chapter 2 Test Score: ____
<u>Week 7, Day 4</u> 3.1.1 Graphing and Writing Inequalities	
<u>Week 7, Day 5</u> 3.1.2 Solving Inequalities by Adding or Subtracting	

Week 8 Chapter 3: Inequalities	
Assignments	Notes
<u>Week 8, Day 1</u> 3.1.3 Solving Inequalities by Multiplying or Dividing	
<u>Week 8, Day 2</u> Subchapter 3.1 Worksheet	
<u>Week 8, Day 3</u> 3.2.1 Solving Two-Step and Multi-Step Inequalities	
<u>Week 8, Day 4</u> 3.2.2 Solving Inequalities with Variables on Both Sides	
<u>Week 8, Day 5</u> 3.2.3 Solving Compound Inequalities	

Week 9 Chapter 3: Inequalities Chapter 3 Test	
Assignments	Notes
<u>Week 9, Day 1</u> 3.2.4 Solving Absolute-Value Inequalities	
<u>Week 9, Day 2</u> Subchapter 3.2 Worksheet, Part I	
<u>Week 9, Day 3</u> Subchapter 3.2 Worksheet, Part II	
<u>Week 9, Day 4</u> Chapter 3 Practice Test	
<u>Week 9, Day 5</u> Chapter 3 Test	Chapter 3 Test Score: _____

Week 10 Chapter 4: Functions	
Assignments	Notes
<u>Week 10, Day 1</u> 4.1.1 Graphing Relationships	
<u>Week 10, Day 2</u> 4.1.2 Relations and Functions	
<u>Week 10, Day 3</u> 4.1.3 Writing Function Rules	
<u>Week 10, Day 4</u> Subchapter 4.1 Worksheet	
<u>Week 10, Day 5</u> 4.2.1 Graphing Functions	

Week 11 Chapter 4: Functions Chapter 4 Test	
Assignments	Notes
<u>Week 11, Day 1</u> 4.2.2 Scatter Plots and Trend Lines	
<u>Week 11, Day 2</u> 4.2.3 Arithmetic Sequences	
<u>Week 11, Day 3</u> Subchapter 4.2 Worksheet	
<u>Week 11, Day 4</u> Chapter 4 Practice Test	
<u>Week 11, Day 5</u> Chapter 4 Test	Chapter 4 Test Score: _____

Week 12 Chapter 5: Linear Functions	
Assignments	Notes
<u>Week 12, Day 1</u> 5.1.1 Identifying Linear Functions	
<u>Week 12, Day 2</u> 5.1.2 Using Intercepts	
<u>Week 12, Day 3</u> 5.1.3 Rate of Change and Slope	
<u>Week 12, Day 4</u> 5.1.4 The Slope Formula	
<u>Week 12, Day 5</u> 5.1.5 The Midpoint and Distance Formulas	

Week 13 Chapter 5: Linear Functions	
Assignments	Notes
<u>Week 13, Day 1</u> 5.1.6 Direct Variation	
<u>Week 13, Day 2</u> Subchapter 5.1 Worksheet, Part I	
<u>Week 13, Day 3</u> Subchapter 5.1 Worksheet, Part II	
<u>Week 13, Day 4</u> 5.2.1 Slope-Intercept Form	
<u>Week 13, Day 5</u> 5.2.2 Point-Slope Form	

Week 14 Chapter 5: Linear Functions Chapter 5 Test	
Assignments	Notes
<u>Week 14, Day 1</u> 5.2.3 Slopes of Parallel and Perpendicular Lines	
<u>Week 14, Day 2</u> 5.2.4 Transforming Linear Functions	
<u>Week 14, Day 3</u> Subchapter 5.2 Worksheet	
<u>Week 14, Day 4</u> Chapter 5 Practice Test	
<u>Week 14, Day 5</u> Chapter 5 Test	Chapter 5 Test Score: _____

Week 15 Chapter 6: Systems of Equations and Inequalities	
Assignments	Notes
<u>Week 15, Day 1</u> 6.1.1 Solving Systems by Graphing	
<u>Week 15, Day 2</u> 6.1.2 Solving Systems by Substitution	
<u>Week 15, Day 3</u> 6.1.3 Solving Systems by Elimination	
<u>Week 15, Day 4</u> 6.1.4 Solving Special Systems	
<u>Week 15, Day 5</u> 6.1.5 Applying Systems	

Week 16 Chapter 6: Systems of Equations and Inequalities	
Assignments	Notes
<u>Week 16, Day 1</u> Subchapter 6.1 Worksheet	
<u>Week 16, Day 2</u> 6.2.1 Graphing Linear Inequalities	
<u>Week 16, Day 3</u> 6.2.2 Solving Systems of Linear Inequalities	
<u>Week 16, Day 4</u> Subchapter 6.2 Worksheet	
<u>Week 16, Day 5</u> Chapter 6 Practice Test	

Week 17 Chapter 6 Test Midterm Exam Chapter 7: Exponents and Polynomials	
Assignments	Notes
<u>Week 17, Day 1</u> Chapter 6 Test	Chapter 6 Test Score: ____
<u>Week 17, Day 2</u> Study for Midterm Exam	
<u>Week 17, Day 3</u> Midterm Practice Exam	
<u>Week 17, Day 4</u> Midterm Exam	Midterm Exam Score: ____
<u>Week 17, Day 5</u> 7.1.1 Product and Power Properties of Exponents	

Week 18 Chapter 7: Exponents and Polynomials	
Assignments	Notes
<u>Week 18, Day 1</u> 7.1.2 Integer Exponents	
<u>Week 18, Day 2</u> 7.1.3 Quotient Properties of Exponents	
<u>Week 18, Day 3</u> 7.1.4 An Application of Exponents: Scientific Notation	
<u>Week 18, Day 4</u> 7.1.5 Fractional Exponents	
<u>Week 18, Day 5</u> Subchapter 7.1 Worksheet, Part I Subchapter 7.2 Worksheet, Part II	

Week 19 Chapter 7: Exponents and Polynomials	
Assignments	Notes
<u>Week 19, Day 1</u> 7.2.1 Polynomials	
<u>Week 19, Day 2</u> 7.2.2 Adding and Subtracting Polynomials	
<u>Week 19, Day 3</u> 7.2.3 Multiplying Polynomials by Monomials	
<u>Week 19, Day 4</u> 7.2.4 Multiplying Binomials	
<u>Week 19, Day 5</u> Subchapter 7.2 Worksheet, Part I Subchapter 7.2 Worksheet, Part II	

Week 20 Chapter 7 Test Chapter 8: Factoring Polynomials	
Assignments	Notes
<u>Week 20, Day 1</u> Chapter 7 Practice Test	
<u>Week 20, Day 2</u> Chapter 7 Test	Chapter 7 Test Score: _____
<u>Week 20, Day 3</u> 8.1.1 Factors and Greatest Common Factors	
<u>Week 20, Day 4</u> 8.1.2 Factoring by GCF	
<u>Week 20, Day 5</u> 8.1.3 Factoring $x^2 + bx + c$	

Week 21 Chapter 8: Factoring Polynomials	
Assignments	Notes
<u>Week 21, Day 1</u> 8.1.4 Factoring $ax^2 + bx + c$	
<u>Week 21, Day 2</u> Subchapter 8.1 Worksheet, Part I	
<u>Week 21, Day 3</u> Subchapter 8.1 Worksheet, Part II	
<u>Week 21, Day 4</u> 8.2.1 Factoring Special Products	
<u>Week 21, Day 5</u> 8.2.2 Choosing a Factoring Method	

Week 22 Chapter 8: Factoring Polynomials Chapter 8 Test Chapter 9: Quadratic Functions and Equations	
Assignments	Notes
<u>Week 22, Day 1</u> Subchapter 8.2 Worksheet	
<u>Week 22, Day 2</u> Chapter 8 Practice Test	
<u>Week 22, Day 3</u> Chapter 8 Test	Chapter 8 Test Score: _____
<u>Week 22, Day 4</u> 9.1.1 Identifying Quadratic Functions	
<u>Week 22, Day 5</u> 9.1.2 Characteristics of Quadratic Functions	

Week 23 Chapter 9: Quadratic Functions and Equations	
Assignments	Notes
<u>Week 23, Day 1</u> 9.1.3 Graphing Quadratic Functions	
<u>Week 23, Day 2</u> 9.1.4 Transforming Quadratic Functions	
<u>Week 23, Day 3</u> Subchapter 9.1 Worksheet	
<u>Week 23, Day 4</u> 9.2.1 Solving Quadratic Equations by Graphing	

Week 23, Day 5 9.2.2 Solving Quadratic Equations by Factoring	
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Week 24 Chapter 9: Quadratic Functions and Equations	
Assignments	Notes
Week 24, Day 1 9.2.3 Solving Quadratic Equations by Using Square Roots	
Week 24, Day 2 9.2.4 Completing the Square	
Week 24, Day 3 9.2.5 The Quadratic Formula	
Week 24, Day 4 9.2.6 The Discriminant	
Week 24, Day 5 Subchapter 9.2 Worksheet, Part I	

Week 25 Chapter 9: Quadratic Functions and Equations Chapter 9 Test Chapter 10: Data Analysis and Probability	
Assignments	Notes
Week 25, Day 1 Subchapter 9.2 Worksheet, Part II	
Week 25, Day 2 Chapter 9 Practice Test	
Week 25, Day 3 Chapter 9 Test	Chapter 9 Test Score: _____
Week 25, Day 4 10.1.1 Experimental Probability	
Week 25, Day 5 10.1.2 Theoretical Probability	

Week 26 Chapter 10: Data Analysis and Probability	
Assignments	Notes
Week 26, Day 1 10.1.3 Independent and Dependent Events	
Week 26, Day 2 10.1.4 Combinations and Permutations	
Week 26, Day 3 Subchapter 10.1 Worksheet, Part I	

Week 26, Day 4 Subchapter 10.1 Worksheet, Part II	
Week 26, Day 5 10.2.1 Bar, Circle, and Line Graphs	

Week 27 Chapter 10: Data Analysis and Probability	
Assignments	Notes
Week 27, Day 1 10.2.2 Stem and Leaf Plots and Histograms	
Week 27, Day 2 10.2.3 Mean, Median, Mode, and Range	
Week 27, Day 3 10.2.4 Box-and-Whisker Plots	
Week 27, Day 4 10.2.5 Expected Value	
Week 27, Day 5 10.2.6 Normal Distribution	

Week 28 Chapter 10: Data Analysis and Probability Chapter 10 Test	
Assignments	Notes
Week 28, Day 1 10.2.7 Misleading Graphs and Statistics	
Week 28, Day 2 Subchapter 10.2 Worksheet, Part I	
Week 28, Day 3 Subchapter 10.2 Worksheet, Part II	
Week 28, Day 4 Chapter 10 Practice Test	
Week 28, Day 5 Chapter 10 Test	Chapter 10 Test Score: _____

Week 29 Chapter 11: Exponential and Radical Functions	
Assignments	Notes
Week 29, Day 1 11.1.1 Geometric Sequences	
Week 29, Day 2 11.1.2 Exponential Functions	

Week 29, Day 3 11.1.3 Exponential Growth and Decay	
Week 29, Day 4 11.1.4 Linear, Quadratic, and Exponential Models	
Week 29, Day 5 Subchapter 11.1 Worksheet	

Week 30 Chapter 11: Exponential and Radical Functions	
Assignments	Notes
Week 30, Day 1 11.2.1 Square-Root Functions	
Week 30, Day 2 11.2.2 Radical Expressions	
Week 30, Day 3 11.2.3 Adding and Subtracting Radical Expressions	
Week 30, Day 4 11.2.4 Multiplying and Dividing Radical Expressions	
Week 30, Day 5 11.2.5 Solving Radical Equations	

Week 31 Chapter 11: Exponential and Radical Functions Chapter 11 Test Chapter 12: Rational Functions and Equations	
Assignments	Notes
Week 31, Day 1 Subchapter 11.2 Worksheet, Part I	
Week 31, Day 2 Subchapter 11.2 Worksheet, Part II	
Week 31, Day 3 Chapter 11 Practice Test	
Week 31, Day 4 Chapter 11 Test	Chapter 11 Test Score: _____
Week 31, Day 5 12.1.1 Inverse Variation	

Week 32 Chapter 12: Rational Functions and Equations	
Assignments	Notes
Week 32, Day 1 12.1.2 Rational Functions	

Week 32, Day 2 12.1.3 Simplifying Rational Expressions	
Week 32, Day 3 Subchapter 12.1 Worksheet	
Week 32, Day 4 12.2.1 Multiplying and Dividing Rational Expressions	
Week 32, Day 5 12.2.2 Adding and Subtracting Rational Expressions	

Week 33 Chapter 12: Rational Functions and Equations	
Assignments	Notes
Week 33, Day 1 12.2.3 Dividing Polynomials	
Week 33, Day 2 12.2.4 Solving Rational Equations	
Week 33, Day 3 Subchapter 12.2 Worksheet, Part I	
Week 33, Day 4 Subchapter 12.2 Worksheet, Part II	
Week 33, Day 5 Chapter 12 Practice Test	

Week 34 Chapter 12 Test Final Exam	
Assignments	Notes
Week 34, Day 1 Chapter 12 Test	Chapter 12 Test Score: _____
Week 34, Day 2 Study for Final Exam	
Week 34, Day 3 Study for Final Exam	
Week 34, Day 4 Final Exam Practice Test	
Week 34, Day 5 Final Exam	Final Exam Score: _____