# algebra 1

# Daily Course Lesson Plan

On the pages that follow is a daily lesson guide for you and your student to follow in order to stay on track with Thinkwell's Algebra 1 coursework.

Under each week's header you'll see which chapters are covered along with each day's assignments for that week. The duration for each topic's video lesson is also noted. Feel free to work as quickly or as slowly through the content as is appropriate for your student's learning style.

We suggest printing this daily lesson plan and keeping it handy. Please let us know if you have any questions about the content here. Email us at support@thinkwell.com.

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

Thank you for making us part of your homeschool curriculum. This 36-week daily lesson plan is meant to be a guide for you and your homeschool student. Feel free to modify this plan to suit your individual needs.

As described below, each day your student will study a different topic and all the materials associated with that topic, such as video lectures, exercises, and worksheets. Expect to spend about an hour to an hour and a half per day on the content suggested here.

If you follow our day-by-day schedule, you'll complete the full curriculum for the course in 36 weeks. Please let us know if we can assist you with any of the material here. We're happy to be your partner in thinking well.

#### **Suggested Weekly Pacing Guide:**

	, 8
Week 1	1.1 The Language of Algebra
Week 2	1.1 The Language of Algebra (Cont.) 🔷 1.2 Tools of Algebra
Week 3	1.2 Tools of Algebra (Cont.)
Week 4	1.2 Tools of Algebra (Cont.)  Test – 1.1 & 1.2  2.1 Solving Equations
Week 5	2.1 Solving Equations (Cont.)
Week 6	2.1 Solving Equations (Cont.) 🔷 2.2 Proportion and Percent
Week 7	2.2 Proportion and Percent (Cont.)
Week 8	2.2 Proportion and Percent (Cont.) Test – 2.1 & 2.2 3.1 Introduction to Inequalities
Week 9	3.1 Introduction to Inequalities (Cont.)   3.2 Multi-Step and Compound Inequalities
Week 10	3.2 Multi-Step and Compound Inequalities (Cont.)
Week 11	Test − 3.1 & 3.2 ◆ 4.1 Introduction to Functions
Week 12	4.1 Introduction to Functions (Cont.) 🔷 4.2 Applying Functions
Week 13	4.2 Applying Functions Test – 4.1 & 4.2 5.1 Characteristics of Linear Functions
Week 14	5.1 Characteristics of Linear Functions (Cont.)
Week 15	5.1 Characteristics of Linear Functions (Cont.)

Week 16	5.2 Using Linear Functions (Cont.)
Week 17	5.2 Using Linear Functions (Cont.)  Test – 5.1 & 5.2
Week 18	Exam – Modules 1-17 🔷 6.1 Systems of Linear Equations
Week 19	6.1 Systems of Linear Equations (Cont.)
Week 20	6.1 Systems of Linear Equations (Cont.)
Week 21	6.2 Linear Inequalities (Cont.)  Test – 6.1 & 6.2  7.1 Exponents
Week 22	7.1 Exponents (Cont.)
Week 23	7.1 Exponents (Cont.)   7.2 Polynomials
Week 24	7.2 Polynomials (Cont.)
Week 25	Test − 7.1 & 7.2 ◆ 8.1 Factoring Methods
Week 26	8.1 Factoring Methods (Cont.)
Week 27	8.1 Factoring Methods (Cont.)   8.2 Applying Factoring Methods
Week 28	8.2 Applying Factoring Methods (Cont.) $igoplus$ Test – 8.1 & 8.2 $igoplus$ 9.1 Quadratic Functions
Week 29	9.1 Quadratic Functions (Cont.)
Week 30	9.1 Quadratic Functions (Cont.)   9.2 Solving Quadratic Equations
Week 31	9.2 Solving Quadratic Equations (Cont.)
Week 32	9.2 Solving Quadratic Equations (Cont.)  Test – 9.1 & 9.2 10.1 Probability
Week 33	10.1 Probability (Cont.)
Week 34	10.2 Data Analysis
Week 35	10.2 Data Analysis (Cont.)
Week 36	Test – 10.1 & 10.2 🔷 Exam – Modules 19-35

## **Suggested Daily Pacing Guide:**

#### Week 1 1.1 The Language of Algebra

Assignments	Notes
Week 1, Day 1	
1.1.1 Variables and Expressions (11:56)	
Week 1, Day 2  ☐ 1.1.2 Adding and Subtracting Real Numbers (10:02)	
Week 1, Day 3  ☐ 1.1.3 Multiplying and Dividing Real Numbers (9:12)	
Week 1, Day 4  ☐ 1.1.4 Powers and Exponents (11:24)	
Week 1, Day 5  ■ 1.1.5 Square Roots and Real Numbers (9:49)	

## Week 2 1.1 The Language of Algebra (Cont.) • 1.2 Tools of Algebra

Assignments	Notes
Week 2, Day 1  ■ 1.1 Review Worksheet: The Language of Algebra, Part 1	
Week 2, Day 2  ☐ 1.1 Review Worksheet: The Language of Algebra, Part 2	
Week 2, Day 3  ☐ Quiz 1.1	Score:
Week 2, Day 4  ■ 1.2.1 Set Theory (22:15)	
Week 2, Day 5  ■ 1.2.2 Order of Operations (12:33)	

#### Week 3 1.2 Tools of Algebra (Cont.)

Assignments	Notes
Week 3, Day 1  ■ 1.2.3 Simplifying Expressions (12:13)	
Week 3, Day 2  1.2.4 Introduction to Functions (17:28), dαy 1	
Week 3, Day 3  ■ 1.2.4 Introduction to Functions (17:28), dαy 2	
Week 3, Day 4  ■ 1.2 Review Worksheet: Tools of Algebra, Part 1	
Week 3, Day 5  ■ 1.2 Review Worksheet: Tools of Algebra, Part 2	

#### Week 4 1.2 Tools of Algebra (Cont.) ◆ Test – 1.1 & 1.2 ◆ 2.1 Solving Equations

Assignments	Notes
Week 4, Day 1  ☐ Quiz – 1.2	Score:
Week 4, Day 2  ☐ Practice Test – 1.1 & 1.2	
Week 4, Day 3  ☐ Test - 1.1 & 1.2	Score:
Week 4, Day 4  ☐ 2.1.1 Addition and Subtraction Equations (9:06)	
Week 4, Day 5  ■ 2.1.2 Multiplication and Division Equations (9:41)	

#### Week 5 2.1 Solving Equations (Cont.)

Assignments	Notes
Week 5, Day 1  ■ 2.1.3 Solving Two-Step Equations (26:23), day 1	
Week 5, Day 2  ■ 2.1.3 Solving Two-Step Equations (26:23), day 2	
Week 5, Day 3  ■ 2.1.4 Solving Multi-Step Equations (19:35), dαy 1	
Week 5, Day 4  ■ 2.1.4 Solving Multi-Step Equations (19:35) day 2	
Week 5, Day 5  ■ 2.1.5 Solving Equations with Variables on Both Sides (16:43)	

# Week 6 2.1 Solving Equations (Cont.) • 2.2 Proportion and Percent

Assignments	Notes
Week 6, Day 1  ☐ 2.1 Review Worksheet: Solving Equations, Part 1	
Week 6, Day 2  ■ 2.1 Review Worksheet: Solving Equations, Part 2	
Week 6, Day 3  ☐ Quiz - 2.1	Score:
Week 6, Day 4  ☐ 2.2.1 Rates, Ratios, and Proportions (12:10), day 1	
Week 6, Day 5  ■ 2.2.1 Rates, Ratios, and Proportions (12:10), day 2	

#### Week 7 2.2 Proportion and Percent (Cont.)

Assignments	Notes
Week 7, Day 1  2.2.2 Applications of Proportion (12:54)	
Week 7, Day 2  ■ 2.2.3 Percents (13:26)	
Week 7, Day 3  ☐ 2.2.4 Applications of Percent (11:54)	
Week 7, Day 4  ☐ 2.2.5 Percent Increase and Decrease (13:27)	
Week 7, Day 5  ■ 2.2 Review Worksheet: Proportion and Percent, Part 1	

#### Week 8 2.2 Proportion and Percent (Cont.) ◆ Test – 2.1 & 2.2 ◆ 3.1 Introduction to Inequalities

Assignments	Notes
Week 8, Day 1	
2.2 Review Worksheet: Proportion and Percent, Part 2	
Week 8, Day 2	
Quiz – 2.2	Score:
Week 8, Day 3	
Practice Test – 2.1 & 2.2	
Week 8, Day 4	
■ Test - 2.1 & 2.2	Score:
Week 8, Day 5	
3.1.1 Graphing and Writing Inequalities (11:56)	

# Week 9 3.1 Introduction to Inequalities (Cont.) 3.2 Multi-Step and Compound Inequalities

Assignments	Notes
Week 9, Day 1  ■ 3.1.2 Solving Inequalities by Adding or Subtracting (13:05)	
Week 9, Day 2  ■ 3.1.3 Solving Inequalities by Multiplying or Dividing (14:14)	
Week 9, Day 3  ■ 3.1 Review Worksheet: Introduction to Inequalities	
Week 9, Day 4  ☐ Quiz – 3.1	Score:
Week 9, Day 5  ■ 3.2.1 Solving Two-Step and Multi-Step Inequalities (12:39)	

#### Week 10 3.2 Multi-Step and Compound Inequalities (Cont.)

Assignments	Notes
Week 10, Day 1  ☐ 3.2.2 Solving Inequalities with Variables on Both Sides (10:11)	
Week 10, Day 2  ☐ 3.2.3 Solving Compound Inequalities (13:04)	
Week 10, Day 3  ■ 3.2 Review Worksheet: Multi-Step and Compound Inequalities, Part 1	
Week 10, Day 4  ☐ 3.2 Review Worksheet: Multi-Step and Compound Inequalities, Part 2	
Week 10, Day 5  ☐ Quiz - 3.2	Score:

#### Week 11 Test − 3.1 & 3.2 ◆ 4.1 Introduction to Functions

Assignments	Notes
Week 11, Day 1  ☐ Practice Test – 3.1 & 3.2	
Week 11, Day 2  ☐ Test - 3.1 & 3.2	Score:
Week 11, Day 3  ■ 4.1.1 Graphing Relationships (11:54)	
Week 11, Day 4  ■ 4.1.2 Relations and Functions (14:40)	
Week 11, Day 5  ■ 4.1.3 Writing Function Rules (19:07), day 1	

# Week 12 4.1 Introduction to Functions (Cont.) ◆ 4.2 Applying Functions

Assignments	Notes
Week 12, Day 1  ■ 4.1.3 Writing Function Rules (19:07), day 2	
Week 12, Day 2  ■ 4.1 Review Worksheet: Introduction to Functions	
Week 12, Day 3  ☐ Quiz - 4.1	Score:
Week 12, Day 4  ■ 4.2.1 Graphing Functions (6:39)	
Week 12, Day 5  ■ 4.2.2 Scatter Plots and Trend Lines (9:46)	

#### Week 13 4.2 Applying Functions ◆ Test – 4.1 & 4.2 ◆ 5.1 Characteristics of Linear Functions

Assignments	Notes
Week 13, Day 1  ■ 4.2 Review Worksheet: Applying Functions	
Week 13, Day 2  ☐ Quiz - 4.2	Score:
Week 13, Day 3 ☐ Practice Test – 4.1 & 4.2	
Week 13, Day 4  ☐ Test - 4.1 & 4.2	Score:
Week 13. Day 5  5.1.1 Identifying Linear Functions (17:27), dαy 1	

#### Week 14 5.1 Characteristics of Linear Functions (Cont.)

Assignments	Notes
Week 14, Day 1  ☐ 5.1.1 Identifying Linear Functions (17:27), dαy 2	
Week 14, Day 2  ■ 5.1.2 Using Intercepts (13:27)	
Week 14, Day 3  ■ 5.1.3 Rate of Change and Slope (17:31), day 1	
Week 14, Day 4  ■ 5.1.3 Rate of Change and Slope (17:31), day 2	
Week 14, Day 5  ■ 5.1.4 The Slope Formula (12:59)	

#### Week 15 5.1 Characteristics of Linear Functions (Cont.) ◆ 5.2 Using Linear Functions

Assignments	Notes
Week 15, Day 1  ☐ 5.1 Review Worksheet: Characteristics of Linear Functions, Part 1	
Week 15, Day 2  ■ 5.1 Review Worksheet: Characteristics of Linear Functions, Part 2	
Week 15, Day 3  ☐ Quiz - 5.1	Score:
<u>Week 15, Day 4</u> <b>■</b> 5.2.1 Slope-Intercept Form (18:41), <i>day 1</i>	
<u>Week 15, Day 5</u> ■ 5.2.1 Slope-Intercept Form (18:41), <i>day 2</i>	

#### Week 16 5.2 Using Linear Functions (Cont.)

Assignments	Notes
Week 16, Day 1  ■ 5.2.2 Point-Slope Form (25:53), day 1	
Week 16, Day 2  ☐ 5.2.2 Point-Slope Form (25:53), day 2	
Week 16, Day 3  5.2.3 Slopes of Parallel and Perpendicular Lines (15:00), day 1	
Week 16, Day 4  ☐ 5.2.3 Slopes of Parallel and Perpendicular Lines (15:00), day 2	
Week 16, Day 5  ■ 5.2.4 Transforming Linear Functions (14:34), day 1	

## Week 17 5.2 Using Linear Functions (Cont.) ◆ Test – 5.1 & 5.2

Assignments	Notes
Week 17, Day 1  ■ 5.2.4 Transforming Linear Functions (14:34), dαy 2	
Week 17, Day 2  ■ 5.2 Review Worksheet: Using Linear Functions	
Week 17, Day 3  ☐ Quiz - 5.2	Score:
Week 17, Day 4  ☐ Practice Test – 5.1 & 5.2	
Week 17, Day 5  ☐ Test - 5.1 & 5.2	Score:

## Week 18 Exam − Modules 1-17 ◆ 6.1 Systems of Linear Equations

Assignments	Notes
Week 18, Day 1 ☐ Practice Exam – Modules 1-17	
Week 18, Day 2  ■ Exam – Modules 1-17	Score:
Week 18, Day 3  ☐ 6.1.1 Solving Systems by Graphing (12:53)	
Week 18, Day 4  ☐ 6.1.2 Solving Systems by Substitution (14:08)	
Week 18, Day 5 ☐ 6.1.3 Solving Systems by Elimination (19:38), day 1	

#### Week 19 6.1 Systems of Linear Equations (Cont.)

Assignments	Notes
Week 19, Day 1  ☐ 6.1.3 Solving Systems by Elimination (19:38), dαy 2	
Week 19, Day 2  6.1.4 Solving Special Systems (14:04), day 1	
Week 19, Day 3  6.1.4 Solving Special Systems (14:04), day 2	
Week 19, Day 4  ☐ 6.1.5 Applying Systems (22:06), day 1	
Week 19, Day 5  ☐ 6.1.5 Applying Systems (22:06), day 2	

## Week 20 6.1 Systems of Linear Equations (Cont.) • 6.2 Linear Inequalities

Assignments	Notes
Week 20, Day 1  ■ 6.1 Review Worksheet: Systems of Linear Equations	
Week 20, Day 2  ☐ Quiz – 6.1	Score:
Week 20, Day 3  ☐ 6.2.1 Graphing Linear Inequalities (18:17)	
Week 20, Day 4  ■ 6.2.2 Solving Systems of Linear Inequalities (21:04), day 1	
Week 20, Day 5  ■ 6.2.2 Solving Systems of Linear Inequalities (21:04), day 2	

# Week 21 6.2 Linear Inequalities (Cont.) ◆ Test – 6.1 & 6.2 ◆ 7.1 Exponents

Assignments	Notes
Week 21, Day 1  ☐ 6.2 Review Worksheet: Linear Inequalities	
Week 21, Day 2  ☐ Quiz - 6.2	Score:
Week 21, Day 3  Practice Test – 6.1 & 6.2	
Week 21, Day 4  ☐ Test - 6.1 & 6.2	Score:
Week 21, Day 5  ☐ 7.1.1 Product and Power Properties of Exponents (18:24), dαy 1	

#### Week 22 7.1 Exponents (Cont.)

Assignments	Notes
Week 22, Day 1 7.1.1 Product and Power Properties of Exponents (18:24), day 2	
Week 22, Day 2  ☐ 7.1.2 Integer Exponents (8:32)	
Week 22, Day 3  7.1.3 Quotient Properties of Exponents (15:16)	
Week 22, Day 4  ☐ 7.1.4 An Application of Exponents: Scientific Notation (16:56), day 1	
Week 22. Day 5  ☐ 7.1.4 An Application of Exponents: Scientific Notation (16:56), dαy 2	

# Week 23 7.1 Exponents (Cont.) ◆ 7.2 Polynomials

Assignments	Notes
Week 23, Day 1  ■ 7.1 Review Worksheet: Exponents, Part 1	
Week 23, Day 2  ☐ 7.1 Review Worksheet: Exponents, Part 2	
Week 23, Day 3  ☐ Quiz - 7.1	Score:
Week 23, Day 4  ■ 7.2.1 Polynomials (15:05)	
Week 23, Day 5  ☐ 7.2.2 Adding and Subtracting Polynomials (16:07), dαy 1	

## Week 24 7.2 Polynomials (Cont.)

Assignments	Notes
Week 24, Day 1  ☐ 7.2.2 Adding and Subtracting Polynomials (16:07), day 2	
Week 24, Day 2  ☐ 7.2.3 Multiplying Polynomials by Monomials (11:55)	
Week 24, Day 3  ☐ 7.2.4 Multiplying Binomials (14:16)	
Week 24, Day 4  ☐ 7.2 Review Worksheet: Polynomials, Part 1	
Week 24, Day 5  ■ 7.2 Review Worksheet: Polynomials, Part 2	

#### Week 25 Test − 7.1 & 7.2 ◆ 8.1 Factoring Methods

Assignments	Notes
Week 25, Day 1  ☐ Quiz - 7.2	Score:
Week 25, Day 2 ☐ Practice Test – 7.1 & 7.2	
Week 25, Day 3  ☐ Test - 7.1 & 7.2	Score:
Week 25, Day 4  ■ 8.1.1 Factors and Greatest Common Factors (10:44)	
<u>Week 25, Day 5</u> ■ 8.1.2 Factoring by GCF (20:53), <i>dαy 1</i>	

#### Week 26 8.1 Factoring Methods (Cont.)

Assignments	Notes
<u>Week 26, Day 1</u> ■ 8.1.2 Factoring by GCF (20:53), <i>dαy 2</i>	
Week 26, Day 2 8.1.3 Factoring $x^2 + bx + c$ (12:58)	
Week 26, Day 3 $\blacksquare$ 8.1.4 Factoring $ax^2 + bx + c$ (18:30), $day 1$	
Week 26, Day 4 $\blacksquare$ 8.1.4 Factoring $ax^2 + bx + c$ (18:30), $day 2$	
Week 26, Day 5  ■ 8.1 Review Worksheet: Factoring Methods, Part 1	

# Week 27 8.1 Factoring Methods (Cont.) • 8.2 Applying Factoring Methods

Assignments	Notes
Week 27, Day 1  ■ 8.1 Review Worksheet: Factoring Methods, Part 2	
Week 27, Day 2  ☐ Quiz - 8.1	Score:
Week 27, Day 3  ■ 8.2.1 Factoring Special Products (10:40)	
Week 27, Day 4  ■ 8.2.2 Choosing a Factoring Method (12:37)	
Week 27, Day 5  ■ 8.2 Review Worksheet: Applying Factoring Methods	

#### Week 28 8.2 Applying Factoring Methods (Cont.) ◆ Test – 8.1 & 8.2 ◆ 9.1 Quadratic Functions

Assignments	Notes
Week 28, Day 1  Quiz − 8.2	Score:
Week 28, Day 2 ☐ Practice Test – 8.1 & 8.2	
Week 28, Day 3  ☐ Test - 8.1 & 8.2	Score:
Week 28, Day 4  ☐ 9.1.1 Identifying Quadratic Functions (10:25), day 1	
Week 28, Day 5  9.1.1 Identifying Quadratic Functions (10:25), dαy 2	

#### Week 29 9.1 Quadratic Functions (Cont.)

Assignments	Notes
Week 29, Day 1  9.1.2 Characteristics of Quadratic Functions (17:17), dαy 1	
Week 29, Day 2  9.1.2 Characteristics of Quadratic Functions (17:17), dαy 2	
Week 29, Day 3  ☐ 9.1.3 Graphing Quadratic Functions (14:32)	
Week 29, Day 4  ■ 9.1.4 Transforming Quadratic Functions (12:02)	
Week 29, Day 5  ■ 9.1 Review Worksheet: Quadratic Functions	

## Week 30 9.1 Quadratic Functions (Cont.) ◆ 9.2 Solving Quadratic Equations

Assignments	Notes
Week 30, Day 1  ☐ Quiz - 9.1	Score:
Week 30, Day 2  ■ 9.2.1 Solving Quadratic Equations by Graphing (9:40)	
Week 30, Day 3  ☐ 9.2.2 Solving Quadratic Equations by Factoring (13:59)	
Week 30, Day 4  ☐ 9.2.3 Solving Quadratic Equations by Using Square Roots (10:43)	
Week 30, Day 5  ■ 9.2.4 Completing the Square (17:41), day 1	

#### Week 31 9.2 Solving Quadratic Equations (Cont.)

Assignments	Notes
<u>Week 31, Day 1</u>	
Week 31, Day 2  ☐ 9.2.5 The Quadratic Formula (11:19)	
Week 31, Day 3  ☐ 9.2.6 The Discriminant (13:33)	
Week 31, Day 4  ☐ 9.2 Review Worksheet: Solving Quadratic Equations, Part 1	
Week 31, Day 5  ■ 9.2 Review Worksheet: Solving Quadratic Equations, Part 2	

# Week 32 9.2 Solving Quadratic Equations (Cont.) ◆ Test – 9.1 & 9.2 ◆ 10.1 Probability

Assignments	Notes
Week 32, Day 1  ☐ Quiz - 9.2	Score:
Week 32, Day 2  ☐ Practice Test – 9.1 & 9.2	
Week 32, Day 3  ☐ Test - 9.1 & 9.2	Score:
Week 32, Day 4  ☐ 10.1.1 Experimental Probability (11:11)	
Week 32, Day 5  ■ 10.1.2 Theoretical Probability (9:26)	

#### Week 33 10.1 Probability (Cont.)

Assignments	Notes
Week 33, Day 1  ☐ 10.1.3 Independent and Dependent Events (14:18)	
Week 33, Day 2  10.1.4 Combinations and Permutations (15:58), dαy 1	
Week 33, Day 3  ■ 10.1.4 Combinations and Permutations (15:58), day 2	
Week 33, Day 4  ■ 10.1 Review Worksheet: Probability	
Week 33, Day 5  ☐ Quiz – 10.1	Score:

#### Week 34 10.2 Data Analysis

Assignments	Notes
Week 34, Day 1  ■ 10.2.1 Bar, Circle, and Line Graphs (12:20), day 1	
Week 34, Day 2  ■ 10.2.1 Bar, Circle, and Line Graphs (12:20), dαy 2	
Week 34, Day 3  ■ 10.2.2 Stem-and-Leaf Plots and Histograms (37:08), day 1	
Week 34, Day 4  ☐ 10.2.2 Stem-and-Leaf Plots and Histograms (37:08), day 2	
Week 34, Day 5  10.2.3 Mean, Median, Mode, and Range (13:42)	

## Week 35 10.2 Data Analysis (Cont.)

Assignments	Notes
Week 35, Day 1  ■ 10.2.4 Box-and-Whisker Plots (6:45)	
Week 35, Day 2  ■ 10.2 Review Worksheet: Data Analysis, Part 1	
Week 35, Day 3  ■ 10.2 Review Worksheet: Data Analysis, Part 2	
Week 35, Day 4  ☐ Quiz – 10.2	Score:
Week 35, Day 5  ☐ Practice Test – 10.1 & 10.2	

# Week 36 Test – 10.1 & 10.2 • Exam – Modules 19-35

Assignments	Notes
Week 36, Day 1  ☐ Test - 10.1 & 10.2	Score:
Week 36, Day 2  ☐ Study for Exam – Modules 19-35	
Week 36, Day 3  ☐ Study for Exam – Modules 19-35	
Week 36, Day 4  ☐ Practice Exam – Modules 19-35	
Week 36, Day 5  ■ Exam – Modules 19-35	Score: