Teacher Edition

Algebra 2

Fourth Edition

bju press
Greenville, South Carolina

Part
1

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FEATURES

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Teaching Strategies

Suggested strategies for engaging instruction.

Clarifying Notes

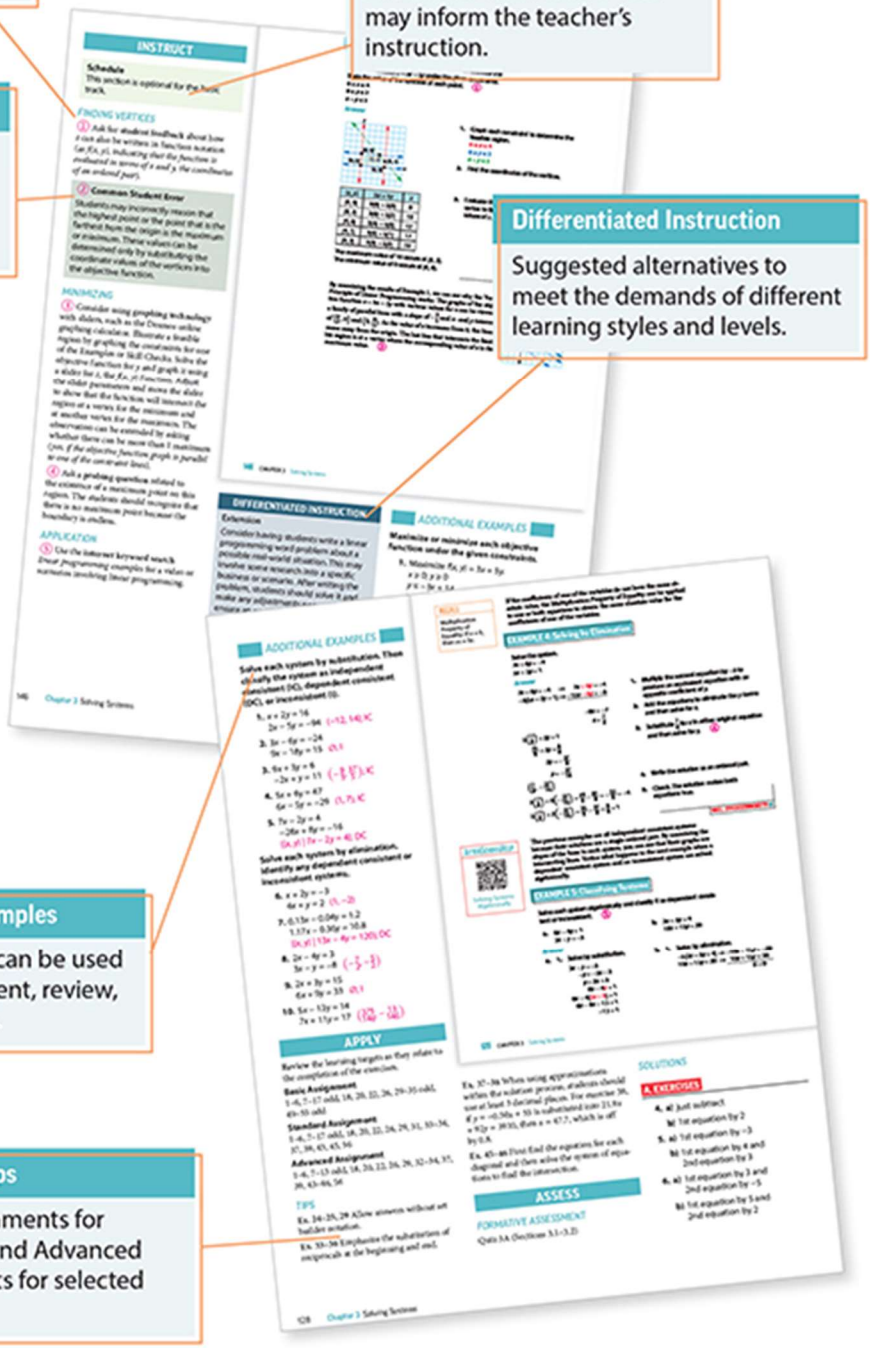
Additional information that may inform the teacher's instruction.

Background Notes

Enrichment information that the teacher may share with students during instruction to enhance student learning.

Differentiated Instruction

Suggested alternatives to meet the demands of different learning styles and levels.



Additional Examples

Exercises that can be used for reinforcement, review, or assessment.

Assignments & Tips

Suggested assignments for Basic, Standard, and Advanced tracks and insights for selected exercises.

LESSON PLAN OVERVIEW

Chapter 1: Basic Algebra

Pages	Objectives	Resources	Assessments
Let's Go Exploring!			
ix–xiii	• Explain the importance of Algebra 2. • Provide an overview of the essential mathematical practices. • Describe features of the Student Edition.		**Assessments** • Pretest Chapter 1
1.1 Real Number Operations			
4–9	**1.1.1** Identify the subsets of the real number system, their relationship to each other, and examples of each. **1.1.2** Identify basic real number properties. **1.1.3** Determine whether a set of numbers is closed under a given operation. **1.1.4** Evaluate numerical expressions by using the order of operations. **1.1.5** Evaluate algebraic expressions by using the Substitution Property. **1.1.6** Explain the importance of the order of operations. BWS Foundations (explain)	**BJU Press Trove*** • Video: Scripture and Mathematics • PowerPoint presentation: Section 01.1 **AfterSchoolHelp.com** • Real Number Operations	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 4)
1.2 Simplifying Algebraic Expressions			
10–16	**1.2.1** Apply the definitions and properties of exponents to simplify algebraic expressions. **1.2.2** Classify polynomials by their number of terms and degree. **1.2.3** Add and subtract polynomials.	**Activities** • Simplifying Expressions • Using Technology—Evaluating Expressions **BJU Press Trove** • PowerPoint presentation: Section 01.2 **AfterSchoolHelp.com** • Simplifying Algebraic Expressions	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 10) **Assessments** • Quiz 1A (Sections 1.1–1.2)

*Digital resources for homeschool users are available on Homeschool Hub.

Pages	Objectives	Resources	Assessments
1.3 Solving Equations			
17–22	**1.3.1** Identify properties of equality. **1.3.2** Solve equations by applying the properties of equality. **1.3.3** Solve literal equations for a specified variable. **1.3.4** Explain what it means for a mathematical solution to be correct. BWS Foundations (explain)	**BJU Press Trove** • PowerPoint presentation: Section 01.3 **AfterSchoolHelp.com** • Solving Equations	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 17)
1.4 Applying Equations (2 days)			
23–29	**1.4.1** Solve problems involving number and angle relationships. **1.4.2** Solve problems involving the distance formula, $d = rt$. **1.4.3** Solve problems involving the simple interest formula, $I = Prt$. **1.4.4** Solve problems involving mixtures.	**Activities** • Solving Equations **BJU Press Trove** • Video: Applying Equations • PowerPoint presentation: Section 01.4 **AfterSchoolHelp.com** • Applying Equations	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 23) **Assessments** • Quiz 1B (Sections 1.3–1.4)
1.5 Solving Inequalities			
30–34	**1.5.1** Solve linear inequalities. **1.5.2** Solve real-world problems by writing and solving linear inequalities.	**BJU Press Trove** • PowerPoint presentation: Section 01.5 **AfterSchoolHelp.com** • Solving Inequalities	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 30)
1.6 Compound Inequalities			
35–40	**1.6.1** Solve compound inequalities. **1.6.2** Solve real-world problems by writing and solving compound linear inequalities. **1.6.3** Explain why math can be used as a tool to describe the world. BWS Foundations (explain)	**Activities** • Solving Inequalities **BJU Press Trove** • PowerPoint presentation: Section 01.6 **AfterSchoolHelp.com** • Compound Inequalities	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 35) **Assessments** • Quiz 1C (Sections 1.5–1.6)

Pages	Objectives	Resources	Assessments
1.7 Absolute Value Equations			
41–48	**1.7.1** Solve absolute value equations. **1.7.2** Write absolute value equations describing graphs and real-world situations. **1.7.3** Use the distance and midpoint formulas to solve problems.	**Activities** • Math History—Richard Dedekind • Using Technology—Absolute Value **BJU Press Trove** • PowerPoint presentation: Section 01.7 **AfterSchoolHelp.com** • Absolute Value Equations	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 41)
1.8 Absolute Value Inequalities			
49–53	**1.8.1** Write a conjunction or disjunction representing an absolute value inequality. **1.8.2** Solve absolute value inequalities. **1.8.3** Write absolute value inequalities describing graphs and real-world situations.	**Activities** • Absolute Value Equations & Inequalities **BJU Press Trove** • PowerPoint presentation: Section 01.8 **AfterSchoolHelp.com** • Absolute Value Inequalities	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 49) **Assessments** • Quiz 1D (Sections 1.7–1.8)
Application Problems—Climate & Disease			
54	**1.AP.1** Make predictions about disease from weather-related graphs. **1.AP.2** Explain how modeling climate and disease data relates to the Creation Mandate. BWS Foundations (explain)		**Student Edition** • Exercises
Chapter 1 Review			
55–59	Review the skills and concepts taught in Chapter 1.	**Activities** • Chapter 1 Review • Cumulative Review 1 **BJU Press Trove** • Game: Mathardy	**Student Edition** • Chapter 1 Review exercises
Chapter 1 Test			
	Demonstrate mastery of the skills and concepts taught in Chapter 1.		**Assessments** • Chapter 1 Test **BJU Press Trove** • Chapter 1 test bank