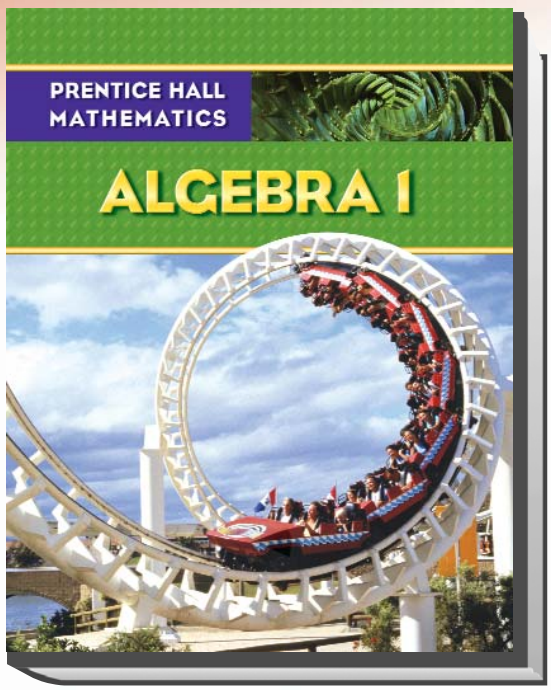
Grades 9-12

Prentice Hall

Mathematics, Algebra 1 ©2009



CORRELATED TO

Idaho Content Standards for Algebra I

Grades 9-12

PEARSON

TEACH & LEARN • ASSESS & INFORM • DEVELOP & LEAD

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Prentice Hall Mathematics, Algebra 1 Program Organization

Prentice Hall Mathematics supports student comprehension of the mathematics by providing well organized sequence of the content, structure of the daily lesson, systematic direct instruction, and teacher support provided for each lesson.

Content Sequence - Prentice Hall is organized with the goal of addressing all of the mathematics standards through direct and effective instruction, building concept upon concept, skill upon skill in an order that is pedagogically sound. The Table of Contents shows the smooth flow of the book, with prerequisite skills and concepts presented before the more complex topics that depend on them.

Starting the Chapter - Every chapter begins by reviewing the previous standards that have been learned and over viewing the standards that will be covered in the chapter. New Vocabulary is identified to prepare students for the chapter. Finally, *Check Your Readiness* questions assess student understanding of necessary prerequisite skills and identifies which lesson they can go to for any necessary remediation.

Lesson Organization - The daily lesson is structured and presented in a consistent format that enables teachers to effectively present the content and monitor student understanding.

- The **Instant Check System** is a system of assessments that helps ensure standards mastery. It is comprised of assessments to use before, during, and after instruction so teachers can easily and effectively monitor student understanding.
    - Each lesson begins with *Check Skills You'll Need* to ensure students have the necessary prerequisite skills for success in the lesson. A Go for Help reference directs them to a previous lesson if remediation is necessary.
    - *Check Skills* questions after every single example provide a way to check student understanding during instruction.
    - Finally, *Checkpoint Quizzes* occur after instruction to continually monitor student progress.
- **Daily Standards Practice** is provided with a comprehensive exercise set following every lesson. Each exercise set is leveled to ensure a variety of practice. **Test Prep and Mixed Review** ensures students also have a daily opportunity to practice concepts and skills previously mastered.

Concluding the Chapter - The following features conclude each chapter, providing opportunities for students to review all standards and demonstrate mastery. This part of the systematic instruction provides regular opportunities for review and practice and ensures focus on and mastery of the Standards.

- **Chapter Review** – The Chapter Review serves as a chapter study guide for students by reviewing the key concepts covered in each lesson and providing an opportunity to practice. In addition, key vocabulary is reviewed.
- **Chapter Test** – Students demonstrate their understanding of the entire chapter by completing this practice chapter test.
- **Standardized Test Prep Cumulative Practice –** This provides a regular opportunity for students to practice and demonstrate mastery of all the standards that have been covered. If remediation is necessary, students are directed to a previous lesson where each concept was taught.

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Assessment

Prentice Hall Mathematics provides teachers with the assessment tools needed to inform instruction and document student progress.

The **Progress Monitoring Assessments** contains all the program assessments needed to evaluate student understanding, monitor student progress, and inform future instruction. The following assessments are included:

- **Formative Assessments**
  - Screening Test – check student readiness at the beginning of the school year
  - Benchmark Tests – monitor student progress
  - Test-Taking Strategy Practice Masters – provide opportunities to improve problem-solving skills
- **Summative Assessments –** *All the summative assessments are provided in two forms – on-level and basic versions. Both forms fully assess student progress on the course content, but the basic versions have been modified for special needs students.*
  - Quarter Tests – on-level and basic versions
  - Mid-Course Tests – on-level and basic versions
  - Final Tests – on-level and basic versions

The **Test Preparation Workbook** contains review lessons and multiple-choice practice tests.

Technology, such as the **ExamView® CD-ROM,** allows teachers to create customized assessment, with all test items correlated to state standards.

Universal Access

Prentice Hall Mathematics provides better solutions for meeting the needs of every student in the classroom. Universal Access can be fostered by modifying instruction to address individual needs, and provided adapted resources when appropriate. Prentice Hall uses a systematic method for labeling and identifying resources and instructional support. This consistency helps teachers easily identify and choose the appropriate support for specific populations of students. The Teacher's Edition provides universal access strategies in detailed daily lesson plans, and daily teaching notes to help differentiate the lesson for all learners, including special needs, below level, advanced and English Language Learners. Chapter-level support pages provide teachers with an easy-to-read overview of the chapter resources available and suggest ways in the instructional lesson to use the resources. Key ancillaries to support universal access include the All-in-One Teaching Resources and the All-in-One Student Workbooks. The Teaching Resources include leveled practice for every lesson and daily activity labs. The All-in-One Student Workbook, available as both on-level and adapted for special needs, includes daily notetaking, daily practice, daily guided problem solving, and vocabulary support.

Instructional Planning and Support

Prentice Hall Mathematics is designed to provide teachers the tools needed to effectively and easily implement the program in the classroom.

A Road Map for Planning the Year - A Leveled Pacing Chart is provided in the Teacher's Edition that lays out a plan for teaching all the mathematics content standards. It suggests time to spend on each Chapter, and offers support for adjusting the instruction to meeting the pacing needs of all students.

Planning a Chapter - The Teacher's Edition begins each chapter with a series of planning pages. These pages provide an overview of the chapter and make it easy to determine how to individualize lessons for specific students.

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Planning Daily Instruction - Teachers can use a variety of program materials to organize their teaching. The primary planning tools are the Teacher's Edition and the Teacher Center Planning CD-ROM. The Teacher's Edition includes step-by-step, daily support for directing instruction. Support is organized systematically around a 4-step teaching plan of Plan, Teach, Practice, and Assess/Reteach.

Instructional Tools to Plan, Teach, and Assess:

- **Core Components**
  - **Student Edition** – Thorough coverage of the standards, with built-in assessments and ongoing student support
  - **Teacher's Edition** – Provides comprehensive support for planning, teaching, and providing Universal Access
- **Teacher Support**
  - **All-in-One Teaching Resources -** All teaching resources are in one convenient place. Includes leveled practice, chapter projects, alternative assessments, cumulative reviews, guided problem solving masters, and vocabulary support.
  - **Progress Monitoring Assessments** – Provides support for formative and summative assessment, with comprehensive resources for monitoring progress on the standards.
  - **Test Preparation Workbook –** Provides instruction and practice on specific test taking strategies.
  - **Teacher Center CD-ROM** – The one-stop solution for planning, teaching, and assessing. The following resources are part of the Teacher Center:
    - **Planning CD-ROM –** Powerful lesson planning software, Teacher's Edition, and Teaching Resources.
    - **Presentation CD-ROM –** Complete support for digital presentations of lessons including videos, activities, stepped-out examples, quick check assessments, and online active math
    - **MindPoint Quiz Show** – Animated game show review for chapter level mathematics
  - **ExamView Test Generator CD-ROM –** Allows teachers to quickly and easily generate tests correlated to the standards.
- **Student Support**
  - **All-in-One Student Workbook –**
    - Structured daily notetaking pages for every lesson
    - Practice for every lesson
    - Guided problem solving pages for every lesson with scaffolded questions
    - Vocabulary and study skills focusing on key mathematical vocabulary
  - **All-in-One Student Workbook, Adapted Version –** Adapted for special needs students. Includes all the resources in the regular All-in-One Student Workbooks, in an adapted form.
  - **Student Center Online –** Complete interactive textbook with videos built-in at point-of-use, digital activities, stepped-out examples, vocabulary support – and more. Also includes the All-in-One Student Workbooks.
  - **Companion Websites -** Grants instant access to a wealth of resources to support learning including vocabulary quizzes, lesson quizzes, data updates, tutorials, chapter tests, and homework video tutors.
- **Transparency Package**
  - **Classroom Aid Transparencies -** Full-color multi-use transparencies such as graphs, fraction strips, and manipulatives
  - **Additional Examples on Transparencies**
  - **Daily Skills Check and Lesson Quiz Transparencies**
  - **Standards Review Transparencies**
  - **Student Edition Answers on Transparencies**

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IDAHO CONTENT STANDARDS FOR ALGEBRA I	PAGE(S) WHERE TAUGHT (If submission is not a text, cite appropriate resource(s))
IDAHO CONTENT STANDARDS	
ALGEBRA I	
MATHEMATICS	
Students are expected to know content and apply skills from the K-8 standards.	
Mathematical reasoning and problem solving processes will be incorporated throughout all mathematics standards. Students will demonstrate knowledge and communicate mathematical thinking through words, numbers, symbols, charts, graphs, tables, diagrams, and models.	
Maintenance Concepts should have been taught previously and are important foundational concepts that will be applied in this course. Continued facility with and understanding of the Maintenance Concepts is essential for success in the objectives for this course.	
Objectives provide the focus for this course. They will be taught using a variety of methods and applications so that students attain a deep understanding of these concepts and are able to apply them to solve real-world problems.	
Skill Statements provide clarity and direction to achieve each objective. Students need to demonstrate proficiency in these skills upon completion of this course.	
The appropriate use of technological tools is encouraged to assist students in the formation and testing of conjectures, creating graphs and data displays, and determining and assessing lines of best fit for data.	
Standard 1: Number and Operation	
Maintenance Concepts for Standard 1	
• Compare, order, describe, and classify rational numbers to include integers, fractions, decimals, and absolute values.	**SE/TE:** 17, 18 (Example 2, Quick Check 2), 19 (Section 2 Comparing Numbers, Example 4, Quick Check 4), 20 (Example 5, Quick Check 5, #1-20), 21 (#24-33, 47-56, 65), 22 (#75-80), 23 (#82, Checkpoint Quiz 1 #10), 32 (#25-27), 37 (#27, 29), 40 (Check Skills You'll Need #1-4), 48 (#21-25), 50 (#7-8), 54 (#13-16), 63 (#88-93), 64 (Check Skills You'll Need #1-4), 76 (#107-110), 198 (#1-4), 247 (#12), 724 (#17-24)
• Add, subtract, multiply, and divide rational numbers.	**SE/TE:** xxx (#2, 14), xxxi (#20), 2 (#6-13), 10 (Example 1, Quick Check 1), 1-14, 15 (#91-96), 45 (#38-39), 48 (#17-20), 50 (#3-6), 54 (#3-12), 56-63, 64-68, 69-76, 79 (Example 1, Quick Check 1), 82 (#1-8, 47-49), 85 (#96-111, Checkpoint Quiz 1 #1-8), 90 (#70-75), 101 (Check Skills You'll Need #5-7), 106 (#56-63), 109 (#11-16), 110 (#17-22), 112 (#1-28), 113 (#1-2, 4-5, 8, 10, 13-15, 19), 116 (#3-14), 124 (#74-83)
• Read, write, and represent rational numbers.	**SE/TE:** xxx (#5, 8, 11), 2 (#1-5), 15 (#84-88), 17 (Check Skills You'll Need #1-8), 20 (#11-12), 21 (#42-46), 22 (#75-76)

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IDAHO CONTENT STANDARDS FOR ALGEBRA I	PAGE(S) WHERE TAUGHT (If submission is not a text, cite appropriate resource(s))
• Convert between standard and scientific notation and evaluate numerical expressions with whole number exponents.	**SE/TE:** 10 (Examples 1-2, Quick Check 1b-1d, Quick Check 2c-2d), 11 (Quick Check 4a, Example 5, Quick Check 5), 12 (Example 6, Quick Check 6a, 6c, #2, 4-5, 9), 13 (#18-28, 32-34, 41-44, 48, 53-56, 58), 14 (#60, 63), 15 (#74-75, 77, 79), 23 (Checkpoint Quiz 1 #6-8), 32 (#28-33), 45 (#38), 48 (#17, 20), 50 (#4), 54 (#4, 6), 63 (#94, 97), 113 (#1, 10, 14), 430 (Check Skills You'll Need #1-6), 436-440, 441 (Check Skills You'll Need #5-7), 442 (Example 3, Quick Check 3), 443 (Example 4, Quick Check 4, #22-28), 444 (#48-53), 445 (#59-62), 446 (#81, 85-92), 447 (Check Skills You'll Need #1-4), 459 (#84), 465 (#63)
• Apply number theory concepts to include primes, composites, prime factorizations, least common multiples, and greatest common factors.	**SE/TE:** xxx (#7, 10), xxxi (#17), 2 (#6-13), 9 (Check Skills You'll Need #1-12), 13 (#32), 15 (#91-96), 501 (Examples 2-3, Quick Check 2-3, #13-18), 510 (#69-76), 542 (#25-33), 617 (Test-Taking Tip), 662 (#1-4), 687 (Check Skills You'll Need #1-9), 688 (Examples 3-4, Quick Check 3), 689 (Quick Check 4, Example 5, Quick Check 5, #13-22), 690 (#23-29, 35-44, 45, 47, 51-54), 691 (#55-58), 692 (Check Skills You'll Need #4-6), 692-693, 695 (#1-17, 24-30, 34), 696 (#42-46), 697 (#49, 51-55), 705 (#40-41, 43-45, Checkpoint Quiz 2 #4-7, 9), 716 (#34-44), 718 (#9-12, 27, 29-33), 754, 755
• Evaluate numerical expressions using order of operations.	**SE/TE:** 9-15, 23 (#83-88, Checkpoint Quiz 1 #5-8), 32 (#28-33), 41 (Example 2), 45 (#38-39), 48 (#17-20), 50 (#3-6), 54 (#3-12), 63 (#94-97), 71 (Example 4, Quick Check 4), 72 (Example 6, Quick Check 6), 73 (#32-39), 74 (#48-53), 76 (#97, 111-113), 79 (#1-6), 85 (#96-103), 85 (#96-103, Checkpoint Quiz 1 #5-7), 110 (#17-22), 112 (#13-28, 34-41), 113 (#1, 19), 124 (#74-79), 126 (#7-10), 250 (#4-7), 428 (#6-9)
• Estimate to predict computation results.	**SE/TE:** xxx (#1), 4 (Check Skills You'll Need #1-4), 124 (#64), 177 (Example 3, Quick Check 3), 178 (#17-20), 180 (Checkpoint Quiz 2 #10), 187 (#67-70), 194 (#34-37), 215 (#52-55), 224 (#71b-71c), 355 (#20b), 654, 757
• Understand the meanings and effects of operations with fractions, decimals, and integers.	**SE/TE:** xxx (#2, 8, 11, 14), xxxi (#20, 25), 2 (#6-16), 9-15, 17 (#1-8), 23 (83-88, Checkpoint Quiz 1 #5-8), 32 (#28-33), 40-45, 48 (#17-20), 49 (#32-38), 50 (#3-6, 18), 51, 54 (#3-12), 56-63, 64-68, 69-76, 79, 80 (Example 2, Quick Check 2), 82 (#1-14, 47-49, 53-55), 85 (#96-111, Checkpoint Quiz 1 #1-2, 5-7), 86-87, 88 (#1-16), 89 (#19, 35), 90 (#54-58, 70-75), 106 (#56-63)

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IDAHO CONTENT STANDARDS FOR ALGEBRA I	PAGE(S) WHERE TAUGHT (If submission is not a text, cite appropriate resource(s))
Goal 1.1: Understand numbers, ways of representing numbers, relationships among numbers, and number systems.	
Objective(s): By the end of Algebra I, the student will be able to:	
AI.1.1.1 Demonstrate meanings for real numbers, absolute value, integer exponents, and square roots.	**SE/TE:** 2 (#14-16), 9, 17-18, 19 (Example 3, Quick Check 3), 20 (Example 5, Quick check 5, #1-23), 21 (#47-50, 65), 22 (#80), 23 (Checkpoint Quiz 1 #10), 32 (#25-27), 37 (#27-29), 48 (#21-25), 50 (#7-8), 176-179, 180 (Checkpoint Quiz 2 #7-10), 181 (#4-6), 187 (#67-74), 193 (#46-50), 194 (#34-37), 430-431, 433 (#1-16, 61), 434 (#63-67, 73-74), 435 (#81-82, 84), 436 (#1-6), 440 (#53-57), 441
AI.1.1.2 Demonstrate how the properties of real numbers apply to rational numbers.	**SE/TE:** 88 (#1, 3, 5-6, 9, 12, 14-16), 89 (#24, 30-31, 90 (#61, 68-69, 72-73, 75), 10 (#39), 112 (#34, 40), 726 (#25, 27, 34-35), 727 (#62-64)
Goal 1.2: Understand meanings of operations and how they relate to one another.	
Objective(s): By the end of Algebra I, the student will be able to:	
AI.1.2.1 Judge the effects of multiplication, division, addition, subtraction, exponents, and square roots on the magnitudes of quantities.	**SE/TE:** 56, 57 (Example 1, Quick Check 1), 59 (#1-4), 61 (#57), 64 (Example 1, Quick Check 1), 6 (#1-8), 68 (#59), 75 (#73), 179 (#54), 430 (Activity: Exponents), 433 (#46-50, 61), 441 (Activity: Exponents With the Same Base Multiplication), 445 (#56b), 447 (Activity: Powers of Powers), 450 (#51), 453 (Dividing Powers With The Same Base), 458 (#73)
Goal 1.3: Compute fluently and make reasonable estimates.	
Objective(s): By the end of Algebra I, the student will be able to:	
AI.1.3.1 Perform computations with exponents, radicals, and scientific notation.	**SE/TE:** xxxi (#25), 176 (Check Skills You'll Need #1-8, Example 1, Quick Check 1), 178 (#1-12, 26-37), 180 (#60, Checkpoint Quiz 2 #7-9), 181 (Check Skills You'll Need #1-6), 182, 193 (#47, 50), 436 (Check Skills You'll Need #1-7), 438 (Example 6, Quick Check 6), 439 (#28-33, 42-43), 440 (#46, 52), 442 (Examples 1, 3, Quick Check 1, 3), 443 (Example 4, Quick Check 4, #1-6, 22-28), 444 (#29-33, 48-54), 445 (#56, 58-64, 77-78, 80), 446 (#81, 83), 449 (Example 5, Quick Check 5), 450 (#23-30, 42, 48-49), 454 (Example 2, Quick Check 2), 455 (Example 4a, Quick Check 4a-4b), 456 (#5-6, 13-21, 25-26, 29-32, 42, 49), 457 (#50, 54-55, 57), 458 (#72, 83), 459 (#84-85, 88, 90),

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AI.1.3.2 Apply number sense to every day situations and judge reasonableness of solutions.	**SE/TE:** xxx (#9), 4 (Check Skills You'll Need #1-4), 29 (Example 4, Quick Check 4), 30 (#7-8, 12), 32 (#23), 37 (#26), 121 (Example 3, Quick Check 3), 122 (#23), 124 (#63-64), 135 (Example 2, Quick Check 2), 137 (#11-12), 208 (Example 4, Quick Check 4, Test Taking Tip), 214 (Example 4), 215 (Quick Check 4), 264, 324-327, 328 (#18), 329, 388 (Example 2, Quick Check 2), 466-467, 573 (Example 4, Quick Check 4), 574 (#21-24, 32-33), 575 (#35, 44), 757 (Example 1)
AI.1.3.3 Use the properties of real numbers to simplify expressions.	**SE/TE:** 79-80, 81 (Example 5, Quick Check 5), 82 (#1-42, 47-55), 83 (#61-76), 84 (#77-89), 85 (#93-95, Checkpoint Quiz 1 #9-10), 87 (Example 2, Quick Check 2), 88 (#10-16), 89 (#19-31, 46), 90 (#54-55, 58-65), 110 (#23-34, 39-44), 112 (#30-43), 113 (#1-2, 6, 15), 116 (15-18), 134 (Check Skills You'll Need #1-4)
Skills Statements	
The student will be able to:	
1. Classify real numbers as rational or irrational.	**SE/TE:** 18, 20 (#1-10, 19), 21 (#65), 22 (#69), 48 (#21-25), 177 (Example 2, Quick Check 2), 178 (#13-16), 187 (#71-74), 193 (#46-50)
2. Distinguish between exact and approximate values of irrational numbers.	**SE/TE:** 177 (Examples 2, 4, Quick Check 2, 4), 178 (Example 5, Quick Check 5, #13, 15, 21-25), 179 (#39-42-44, 47-48), 180 (#61, Checkpoint Quiz 2 #9), 181, 182 (Example 2, Quick Check 2), 184 (#5, 10-12, 15, 26, 28-32), 185 (#33, 35-37, 40-42), 186 (#43, 51, 53-55, 57, 60b), 187 (#62-65, 72-73), 193 (#46-54), 194 (#31, 42), 205 (#80-85)
3. Locate the position of a number on the number line and know its distance from the origin is its absolute value.	**SE/TE:** 17, 19, 20 (Example 5, Quick Check 5), 21 (#34-41, 64), 22 (#75), 56, 57 (Example 1, Quick Check 1), 59 (#1-4), 64 (Example 1, Quick Check 1), 65, 66 (#1-8), 77
4. Approximate the location of an irrational number on a number line.	*An opportunity to address this standard can be found on:* **SE/TE:** 177 (Examples 2, 4, Quick Check 2, 4), 178 (Example 5, Quick Check 5, #13, 15, 21-25), 179 (#39-42-44, 47-48), 180 (#61, Checkpoint Quiz 2 #9), 181, 182 (Example 2, Quick Check 2), 184 (#5, 10-12, 15, 26, 28-32), 185 (#33, 35-37, 40-42), 186 (#43, 51, 53-55, 57, 60b), 187 (#62-65, 72-73), 193 (#46-54), 194 (#31, 42), 205 (#80-85) **High School Mathematics Skills Review and Practice:** 18, 27

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5. Demonstrate the meanings of terms with exponents which are integers.	**SE/TE:** 2 (#14-16), 9, 71 (Example 4, Quick Check 4), 73 (#32-39), 75 (#74), 99, 85 (#98-99, 103), 110 (#22), 112 (#25, 27), 113 (#1, 10, 14, 19), 116 (#13), 428 (#6-13), 430-435, 440 (#53-57), 441 (Check Skills You'll Need #5-8), 485 (#15-17), 488 (#9), 763
6. Use order of operations and the properties of real numbers to simplify expressions (commutative, associative, distributive, inverse, identity, multiplicative property of zero).	**SE/TE:** 9-15, 23 (#83-88, Checkpoint Quiz 1 #5-8), 32 (#28-33), 48 (#17-20), 50 (#3-6), 54 (#3-12), 63 (#94-97), 76 (#111-113), 79-85, 86 (Check Skills You'll Need #1-9), 87 (Example 2, Quick Check 2), 88 (#10-16), 89 (#19-31), 90 (#54, 58-65, 70-75), 91, 110 (#23-34, 39-44), 112 (#1-6, 13-28, 30-41), 113 (#1-2, 5-6, 8, 10, 13-16, 29), 116 (#15-18), 124 (#74-83), 126 (Check Skills You'll Need #1-10), 132 (#83-88), 134 (Check Skills You'll Need #1-4), 724 (#5-16), 725 (#36-37), 726 (#17-18, 24-35)
7. Use appropriate methods to estimate answers and know if they are reasonable.	**SE/TE:** 4 (Check Skills You'll Need #1-4), 29 (Example 4, Quick Check 4), 30 (#7-8, 12), 37 (#26), 121 (Example 3, Quick Check 3), 122 (#23), 124 (#63-64), 135 (Example 2, Quick Check 2), 137 (#11-12), 208 (Example 4, Quick Check 4, Test Taking Tip), 214 (Example 4), 215 (Quick Check 4), 264, 324-327, 328 (#18), 329, 388 (Example 2, Quick Check 2), 466-467, 573 (Example 4, Quick Check 4), 574 (#21-24, 32-33), 575 (#35, 44), 654, 757
8. Select a suitable method of computing from mental mathematics, paper and pencil, calculators, or computers.	**SE/TE:** 40 (Check Skills You'll Need #5-6), 77, 79 (Example 1, Quick Check 1), 80 (Example 2, Quick Check 2), 82 (#9-14), 88 (#10-15), 100, 132 (#83-88), 177 (Example 4, Quick Check 4), 178 (Example 5, Quick Check 5, #21-25), 179 (#40-48), 182, 184 (#1-12), 200 (Example 1, Quick Check 1), 202 (#1-8), 384 (#1-4), 391, 433 (#46-50), 445 (#59-62), 475-482, 514 (Example 3, Quick Check 3), 515 (Example 5, Quick Check 5, #10-14, 21-25), 527 (#63-70), 531 (#39-43), 571, 577, 777
9. Demonstrate that squaring and taking the square root are inverse operations.	**SE/TE:** 176, 182, 184 (#1-15, 26-31), 185 (#35-37), 186 (#56-58), 187 (#62-65), 193 (#51-54), 194 (#42-43), 205 (#80-85), 566 (Example 2, Quick Check 2), 567 (Example 3, Quick Check 3, #10-18), 568 (#28-33), 569 (#41-42), 576 (#54-55), 629-634, 635, 643 (#67-72, Checkpoint Quiz 1 #7-9), 656 (#31-48), 658 (#9-12, 32-37), 662 (#12-14), 720 (#33), 728 (#50-53), 729 (#67-68), 742 (#21-29), 743 (#61-63), 744 (#22-30), 745 (#56-57)

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IDAHO CONTENT STANDARDS FOR ALGEBRA I	PAGE(S) WHERE TAUGHT (If submission is not a text, cite appropriate resource(s))
10. Estimate square roots between consecutive integers.	**SE/TE:** 177 (Example 3, Quick Check 3), 178 (#17-20), 180 (Checkpoint Quiz 2 #10), 187 (#67-70), 194 (#34-37) **High School Mathematics Skills Review and Practice:** 18
11. Simplify square roots containing radicands which are not perfect numbers.	**SE/TE:** 616 (Example 1, Quick Check 1), 617 (Example 3, Quick Check 3a), 618 (Examples 5a, 6a, Quick Check 5a, 6a-6b), 619 (Example 7a, Quick Check 7a, #1-6, 15-18), 620 (#28-31, 36-39, 44-45, 48-49, 58-59, 61, 63-64), 621 (#79, 83), 622 (Check Skills You'll Need #1-3, 5-6, Example 2, Quick Check 2), 623, 625 (#7-25, 38-46), 627 (#64-70, 72), 628 (#74, 76-84), 634 (#62-67), 643 (#1-5), 655 (#9-10, 12, 15), 656 (#19-30), 658 (#1-4, 20, 22-28), 676 (#57, 59, 62), 744 (#1, 3-6, 9-21), 745 (#54-55)
12. Add, subtract, and multiply square roots.	**SE/TE:** 617 (Example 3, Quick Check 3), 619 (Example 7, Quick Check 7, #13-24), 620 (#44-51, 57, 59-64, 68), 621 (#75-77, 80), 622-628, 634 (#62-67), 643 (Checkpoint Quiz 1 #1-6), 655 (#9, 11-17), 656 (#19-30), 658 (#3-6, 23-29), 676 (#57, 59, 62, 64), 744 (#1, 4-6, 8-21)
13. Multiply and divide numbers in scientific notation.	**SE/TE:** 438 (Example 6, Quick Check 6), 439 (#28-33), 440 (#46, 52), 442 (Example 3, Quick Check 3), 443 (Example 4, Quick Check 4, #22-28), 444 (#29-30, 48-53), 445 (#58-62), 446 (#81), 449 (Example 5, Quick Check 5), 450 (#23-30, 49), 451 (#59, 70), 452 (Checkpoint Quiz 1 #10), 454 (Example 2, Quick Check 2), 456 (#13-18), 457 (#50), 458 (#72, 83), 459 (#88), 482 (#63), 486 (39, 46-49), 488 (#18), 539 (#71-78), 719 (#17), 738 (#75-79)
14. Use the properties of exponents to add, subtract, and multiply polynomials, and to divide a polynomial by a monomial.	**SE/TE:** 496, 497 (#21-40), 498 (#43-50, 53-55), 499 (#57-62, 71-78), 500 (Check Skills You'll Need #4-9, Example 1, Quick Check 1), 501 (#1-12), 502 (#27-32), 503 (#45-46, 51-56), 505-510, 511, 512-517, 523 (#72-80), 528 (Check Skills You'll Need #5-7), 533 (Checkpoint Quiz 2 #1-2), 534 (Check Skills You'll Need #5-8), 539 (#63-70), 541 (#13-18), 542 (#19-24, 36-51), 544 (#5-8, 11-21), 548 (#18-20), 556 (#60-65), 682 (Check Skills You'll Need #4-6, Example 1, Quick Check 1), 684 (#1-6), 685 (#27-28, 33, 48), 691 (#59), 716 (#28-30), 718 (#22), 740 (#1-18, 27-40), 741 (#73-79)

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15. Factor polynomials using greatest common factor.	**SE/TE:** 501 (Example 3, Quick Check 3), 502 (#19-26, 34-39), 503 (#49), 510 (#69-76, Checkpoint Quiz #8-10), 525 (Example 3, Quick Check 3), 526 (#22-27, 34, 37), 530 (Example 5, Quick Check 5), 531 (#31-36), 532 (#45-47, 50, 60, 62-63, 64), 533 (Checkpoint Quiz 2 #9), 534 (Example 1, Quick Check 1), 535 (Example 2, Quick Check 2), 536 (Example 4, Quick Check 4), 537 (#5-16, 26-233, 37), 538 (#42-45), 539 (#57, 59, 61), 542 (#25-33, 60), 543 (#81-92), 544 (#45-50), 556 (#58), 576 (#60-61), 584 (#61), 590 (#50-55), 740 (#19-26, 65-72)
16. Factor quadratic expressions where the leading coefficient is 1 or -1.	**SE/TE:** 519-523, 524 (Check Skills You'll Need #4-6), 527 (#54-62), 529 (Examples 1-2, Quick Check 1-2), 530 (Example 3, Quick Check 3), 531 (#1-6, 13-21), 532 (#49), 533 (Checkpoint Quiz #4-6), 539 (#54-56, 58), 542 (#53-55, 57, 59), 543 (#65-67, 72), 544 (#31-32, 34-35), 548 (#24, 26), 570 (#57-62), 573 (Example 2, Quick Check 2, Example 4), 574 (#9-17), 577 (Example 2), 584 (#50-52, 56-58), 596 (#2-6), 608 (#32, 37), 610 (#33, 35-37), 628 (#86-89), 634 (#74-76), 649 (#45-46, 50), 672 (Check Skills You'll Need #4-9), 687 (#10-12), 697 (#62-67)
Suggested vocabulary Absolute value, base, power, exponent, radical, radicand, rationalize, distributive property, evaluate, irrational number, perfect squares and cubes, principal square root, properties of the real number system, real number system, square root, squaring, monomial, binomial, trinomial, polynomial, coefficient, leading coefficient, like terms, factor (noun and verb), FOIL, simplest form, term, constant, degree of polynomial, degree of a term.	
Standard 2: Concepts and Principles of Measurement	
Maintenance Concepts for Standard 2	
• Understand both metric and customary systems of measurement.	**SE/TE:** xxxi (#19), 9 (Activity: Order of Operations), 12 (Example 7, Quick Check 7), 13 (#14, 50), 14 (#60, 63), 15 (#73), 16 (#2-3), 113 (#16), 127 (Example 2, Quick Check 2), 130 (#54, 60-62), 154 (#34), 156-157, 165 (#28), 180 (#63, Checkpoint Quiz 2 #1), 220 (Example 2, Quick Check 2), 266 (#11), 357, 383 (Quick Check 3), 384 (#17), 386 (#9), 413 (Example 3, Quick Check 3), 415 (#21), 450 (#31, 57), 451 (#59), 568 (#22), 675 (#35), 680 (#41-44), 764, 765, 778
• Understand relationships among units and convert from one unit to another in the same system and between systems.	**SE/TE:** 143 (Example 3, Quick Check 3), 146 (#9-15, 32-43), 147 (#48), 192 (#27-29), 194 (#22-25), 275 (#53), 450 (#31, 57)

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• Understand, select, and use units of appropriate size and type to measure angles, perimeter, area, surface area, and volume.	**SE/TE:** xxxi (#19), 9 (Activity: Order of Operations), 12 (Example 7, Quick Check 7), 13 (#14, 50), 14 (#60, 63), 15 (#73), 16 (#2-3), 113 (#16), 127 (Example 2, Quick Check 2), 130 (#54, 60-62), 154 (#34), 156-157, 165 (#28), 180 (#63, Checkpoint Quiz 2 #1), 220 (Example 2, Quick Check 2), 266 (#11), 357, 383 (Quick Check 3), 384 (#17), 386 (#9), 413 (Example 3, Quick Check 3), 415 (#21), 451 (#59), 568 (#22), 675 (#35), 680 (#41-44), 764-765
• Use appropriate methods and units to estimate measurements.	**SE/TE:** 114 (Activity 1a), 156-157, 291, 357, 370-371, 467, 564, 644-645 *Related Content:* 124 (#63-64), 170, 171 (#25-29), 172 (#41, 48, 51-52), 173 (#53, 55, 58), 174, 193 (#45), 764
• Select and apply techniques and tools to accurately find length, area, volume, and angle measures to appropriate levels of precision.	**SE/TE:** 114 (Activity 1b), 153 (#16a), 764 (Example, #1-4, 13)
• Select and use formulas to determine the circumference and area of circles, perimeters and areas of triangles and quadrilaterals.	**SE/TE:** 9 (Activity: Order of Operations), 13 (#14), 113 (#16), 130 (#54-55), 154 (#34), 158 (Example 1, Quick Check 1), 165 (#28), 169 (Example 4, Quick Check 4), 171 (#19-24), 172 (#45-47), 173 (#57, 62), 220 (Example 2, Quick Check 2), 267 (#26), 383 (Quick Check 3), 384 (#17), 386 (Checkpoint Quiz 1 #10), 413 (Example 3, Quick Check 3), 415 (#21), 542 (#51), 543 (#74), 683 (Example 3), 685 (#19-20), 765
• Develop strategies to determine the areas of irregular shapes.	*This standard can be developed from:* **SE/TE:** 506 (Example 3, Quick Check 3), 508 (#20-21, 42), 765 (#2) **High School Mathematics Skills Review and Practice:** 172, 176 (can interpret surface area as the area of a two-dimensional irregular shape) For additional coverage, see **Prentice Hall Mathematics, Geometry.**
• Solve problems involving scale factors, rates, ratios, and proportions.	**SE/TE:** 142-148, 149-155, 156-157, 166-167, 192 (#27-38), 271 (Example 2, Quick Check 2), 277-283, 284-290, 291, 297 (#82-97), 301 (#32-48), 302 (#23), 308-315, 335 (Checkpoint Quiz 1 #5), 365 (#6-10), 461 (Example 1, Quick Check 1), 463 (#1-6), 465 (#45-50, 65-72), 473 (#56-61), 487 (#51-53), 488 (#19), 624 (Example 6, Quick Check 6), 625 (#34-37, 47), 646-649, 650-653, 657 (#57-65), 658 (#51-52)

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Goal 2.1: Understand measurable attributes of objects and the units, systems, and processes of measurement.	
Objective(s): By the end of Algebra I, the student will be able to:	
AI.2.1.1 Make decisions about units and scales that are appropriate for a given problem.	*This standard can be developed from application problems involving rates and measurement:* **SE/TE:** 143 (Examples 2-3, Quick Check 2-3), 146 (#7-8), 147 (#47-48, 53-55), 148 (#61, 63-64), 151 (Examples 3-4, Quick Check 3-4), 152 (#10-15), 153 (#16-21, 23, 25-29), 154 (#35-36, 39), 155 (#41, Checkpoint Quiz 1 #7, 10), 160-161, 162 (Example 5, Quick Check 5, #4), 163 (#9-14), 164 (#16-18, 20-22), 165 (#29, 34), 170 (Examples 5-6, Quick Check 5-6), 172 (#39), 173 (#59), 179 (#39, 52), 180 (Checkpoint Quiz 2 #3), 185 (#40-41), 186 (#43), 192 (#38), 193 (#39, 41), 194 (#8, 27, 33, 43), 729 (#56, 59, 60-63, 66-68)
Goal 2.2: Apply appropriate techniques, tools, and formulas to determine measurements.	
Objective(s): By the end of Algebra I, the student will be able to:	
AI.2.2.1 Convert rates using dimensional analysis.	**SE/TE:** 143 (Example 3, Quick Check 3), 146 (#9-12, 32-43), 147 (#48), 192 (#27-29), 194 (#22-25)
Skills Statements	
The student will be able to:	
1. Appropriately scale a graph for a given situation.	**SE/TE:** 53 (#7, 9b, 12b), 264 (Example 2, Quick Check 2a), 265 (Quick Check3), 266 (#10b-c, 11a-b, 12-14, 24b), 267 (#38), 304 (#6), 305 (#13b, 14a), 325 (#1-3), 326 (#6), 327 (#13), 334 (#47), 335 (#69), 351 (Quick Check 1), 352 (#5), 353 (#6), 354 (#12-13), 355 (#18, 20), 367 (#38), 469 (Quick Check 3), 471 (#19-22), 474 (#1-3), 481 (#40-42), 482 (#54), 487 (#67-70), 488 (#26-28), 770 (#1), 771 (#2a, 3b), 772 (#1-2), 774 (#1-8, 9a), 776 (#1-2)
2. Use dimensional analysis to convert rates between customary and metric systems; i.e. miles per hour to meters per second.	*Rates are converted within the customary system. This standard can be developed from:* **SE/TE:** 143 (Example 3, Quick Check 3), 146 (#32-33, 36-43), 147 (#48), 192 (#27-29), 194 (#23-25)

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Suggested vocabulary Dimensional analysis, unit rate, scaling, intervals.	
Standard 3: Concepts and Language of Algebra and Functions	
Maintenance Concepts for Standard 3	
• Represent, analyze, and generalize a variety of patterns with tables, graphs, words, and, when possible, symbolic rules.	**SE/TE:** 6 (Example 4, Quick Check 4), 7 (#21-24, 39-41), 8 (#43-44), 23 (#89-90), 26, 27 (Example 1, Quick Check 1), 28 (Example 2, Quick Check 2c), 29 (#1-4), 30 (#9-10, 13), 31 (#16), 32 (#22), 36 (#15), 37 (Checkpoint Quiz 2 #1), 49 (#28-30), 50 (#1-2, 22), 54 (#17-19), 116 (#1-2), 270 (Example 1, Quick Check 1), 270-275, 281 (#24-26), 283 (#61-64), 287 (Example 4, Quick Check 4), 288 (#24-26), 289 (#41-43), 292-297, 300 (#28-31), 301 (#46-48, 49-51), 302 (#13-14, 16, 30)
• Relate and compare different forms of representation for a relationship.	**SE/TE:** 4-8, 15 (#80-83), 23 (#89-90, Checkpoint Quiz 1 #1-4), 27 (Check Skills You'll Need #1-4), 27, 28 (Example 2, Quick Check 2c), 29 (#1-4), 30 (#9-10, 13), 31 (#15-17), 32 (#22), 37 (Checkpoint Quiz 2 #1), 48 (#13-16), 49 (#28-30), 50 (#1-2, 9-10), 54 (#1-2, 17-19), 68 (#76-78), 85 (#112), 259 (Example 3, Quick Check 3, #9-16), 261 (#42a), 262 (Checkpoint Quiz 1 #5-8), 263 (Example 1, Quick Check 1), 264 (Example 2, Quick Check 2), 265 (Example 4, Quick Check 4), 266 (#1-11, 15-23), 267 (#27-35, 38)
• Demonstrate an initial conceptual understanding of different uses of variables.	**SE/TE:** 4-8, 10 (Example 2, Quick Check 2), 11 (Examples 3, 5, Quick Check 3, 5), 12 (Example 7, Quick Check 7, #7-12), 13 (#13-14, 21-28, 35-40, 49-58), 14 (#59-64), 15 (#73, 76-77, 80-83), 16, 23 (#89-90, Checkpoint Quiz 1 #1-8), 26-27, 28 (Example 2, Quick Check 2), 29 (#1-4), 30 (#9-10, 13), 31 (#15-16), 32 (#22, 28-33), 37 (Checkpoint Quiz 2 #1), 45 (#38-39), 48 (#13-20), 49 (#28-3), 50 (#1-2, 9-10, 12, 20-22), 54 (#1-6, 17-19), 68 (#76-78), 76 (#111-113), 85 (#112), 90 (#66-69)
• Determine solutions for one- and two-step equations.	**SE/TE:** 118, 119-124, 125, 129 (#1, 44), 132 (#75-82), 134 (Check Skills You'll Need #5-6), 139 (#62), 148 (#66, 68), 155 (#4), 173 (#63-65), 191 (#6-15), 192 (#17, 21), 194 (#6-8), 198 (#8-23), 206 (Check Skills You'll Need #4-7), 212 (Check Skills You'll Need #1-6), 240 (#89), 3-6 (#8), 728 (#1, 5, 9-10), 729 (#54-55)

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• Recognize and generate equivalent forms for simple algebraic expressions.	**SE/TE:** 80 (Examples 3-4, Quick Check 3-4), 81 (Example 5, Quick Check 5), 82 (#15-42, 50-52), 83 (#62-74, 76), 84 (#79-89), 85 (#94, Checkpoint Quiz 1 #9-10), 86 (Check Skills You'll Need #7-9), 88 (Example 3, Quick Check 3), 89 (#20-23, 25-26, 29-30, 32-39, 45), 90 (#59-65), 91, 110 (#23-34, 39-44), 112 (#30-41), 113 (#6), 116 (#15-18), 134 (Check Skills You'll Need (#1-4), 726 (#24-35)
• Model and solve contextualized problems using various representations such as graphs, tables, and equations.	**SE/TE:** 266 (#10, 24), 268 (#62), 271 (Example 2, Quick Check 2), 272 (#17-18), 273 (#21-22, 24), 274 (#30, 35), 276, 280 (Example 5, Quick Check 5), 281 (#28, 45), 282 (#59), 283 (Checkpoint quiz 2 #10), 602 (#15, 17), 603 (#27-28), 604 (#32-33), 689 (Example 5, Quick Check 5), 690 (#29), 693 (Example 3, Quick Check 3), 695 (#16-17), 697 (#47), 729 (#54-59), 733 (#52-55), 737 (#31-38, 41), 739 (#82-83), 743 (#61-66), 745 (#56-58), 747 (#56-57)
• Identify attributes of the Cartesian coordinate system, such as quadrants, origin, and axes.	**SE/TE:** 24, 25 (Example 3, #9-12, 17-18), 406 (Example 3) *Graphing in the Cartesian coordinate system can also be found on:* **SE/TE:** 31 (#17c), 33, 35 (#1-2), 36 (#15, 16), 37 (#5), 49, 258 (Example 2), 259 (#5-8), 263-268, 291, 300, 302, 309 (Example 2), 310, 311 (Example 5), 312 (#3-6), 313 (#7-9), 314, 317, 319-322, 324-328, 331, 333-334, 335 (#6-9), 337 (Example 1), 339 (#1-9), 341 (Mixed Review #70-75), 350-351 (Example 1 Quick Check 1), 352 (#5), 353 (#6), 354, 355 (#20a), 356 (#23a), 357, 360 (Example 2), 361 (Example 4, #4-9), 362, 367-368, 374-378, 379 (#42, 47-49), 386, 404-405, 407-409, 412-418, 421, 423-424, 469 (Example 3), 470-472, 481 (#40-42), 482 (#60-62), 551 (Example 2), 553-556, 558-559 (Example 3), 560-562, 566-567, 571, 597, 599, 600-602, 604 (Mixed Review #37-42), 605, 639-642, 664-671

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Goal 3.1: Understand patterns, relations, and functions.	
Objective(s): By the end of Algebra I, the student will be able to:	
AI.3.1.1 Represent linear patterns and functional relationships in a table and as a graph.	**SE/TE:** 259 (Example 3, Quick Check 3, #9-16), 261 (#42a), 262 (Checkpoint Quiz 1 #5-8), 263 (Example 1, Quick Check 1), 264 (Example 2, Quick Check 2), 265 (Example 4, Quick Check 4), 266 (#1-11, 15-24), 267 (#27-35, 38), 268 (#43-44, 47), 270 (Check Skills You'll Need #1-6), 275 (#41-46), 300 (#24-27), 302 (#8-9), 306 (#13-15), 331 (Examples 2-3, Quick Check 2-3), 333 (#10-18, 23-26), 334 (#38-46), 335 (Checkpoint Quiz 1 #6-9), 337 (Example 1, Quick Check 1), 339 (#1-9), 341 (#70-75), 359 (Check Skills You'll Need #5-7), 366 (#20-22), 368 (#5-8), 372 (#13-15)
AI.3.1.2 Describe the graph of a linear function and discuss its appearance in terms of the basic concepts of intercepts and slope.	**SE/TE:** 310 (Example 3, Quick Check 3), 311 (Example 5, Quick Check 5), 312 (Key Concepts), 313 (#7-9, 22-23), 319 (Examples 4-5, Quick Check 4-5), 320 (#22-27), 321 (#62), 323 (#80), 324 (Check Skills You'll Need #1-4), 328 (#19-21), 331, 333 (#1-26), 334 (#65), 335 (Checkpoint Quiz 1 #10), 337 (Example 1, Quick Check 1), 339 (#1-9), 340 (#36-38), 341 (#70-75), 349 (#83-85), 366 (#14-22), 368 (#13-16), 372 (#13-15), 734 (#5-8, 13-16)
AI.3.1.3 Describe the graph of a quadratic equation as a parabola which opens up or down.	**SE/TE:** 550-551 *Graphs of quadratic equations are explored further on:* **SE/TE:** 553 (#1-3), 555 (#40-41), 557-563, 607 (#6, 8), 610 (#5-8)
Goal 3.2: Represent and analyze mathematical situations and structures using algebraic symbols.	
Objective(s): By the end of Algebra I, the student will be able to:	
AI.3.2.1 Determine the equation for a line, solve linear equations and inequalities.	**SE/TE:** 118, 119-124, 126-132, 134-139, 148 (#66-74), 155 (#1-4), 158-165, 173 (#63-65), 206-211, 212-217, 318 (Examples 2-3, Quick Check 2-3), 320 (#10-27), 321 (#57), 322 (#66-71, 79), 323 (#82-83), 337 (Examples 2-3, Quick Check 2-3), 338 (Examples 4-5, Quick Check 4), 339 (Quick Check 5, #10-30), 340 (#31-56), 341 (#60-64), 349 (#77-82), 350-356, 366 (#14-19, 26-32), 367 (#33-38), 368 (#17-24, 26-31, 36-37), 369 (#2, 5, 12-17)

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AI.3.2.2 Solve and describe linear systems of equations and inequalities using numbers, symbols, and graphs.	**SE/TE:** 374-380, 382-386, 387-393, 394-395, 396-403, 411 (Check Skills You'll Need #1-3), 412 (Example 1, Quick Check 1), 413 (Example 3, Quick Check 3), 414 (Example 4, Quick Check 4, #4-9), 415 (#10-15, 20-22), 416 (#23-24, 30, 35), 417 (#44, 48), 418 (#52), 421 (#10-13), 422 (#14-29), 423 (#37-40), 424 (#1-2, 9-20, 22-26, 28-29), 435 (#94-96), 446 (#93-95), 452 (#78-81), 459 (#99-102), 503 (#65-67), 523 (#81-86), 539 (#79-84), 736 (#1-18, 25-30)
AI.3.2.4 Solve quadratic equations which have roots that are integers.	**SE/TE:** 566 (Example 1a-1b, Quick Check 1a, 1c, Example 2, Quick Check 2a-2b), 567 (#1, 3-4, 6, 8-13, 17, 19, 21), 568 (#38), 569 (#44, 46), 570 (Checkpoint Quiz 1 #5, 7-9), 571 (#2, 7), 572 (Example 1, Quick Check 1a), 573 (Examples 2, 4, Quick Check 2, 4), 574 (#7-17, 26, 29, 31), 575 (#37), 580 (Example 2, Quick Check 2), 582 (#7, 9, 11-13, 15, 18, 23-24), 583 (#42), 584 (#50-52), 585 (Check Skills You'll Need #4-7), 586 (Example 1, Quick Check 1), 588 (#6), 589 (#24, 29), 590 (#48), 596 (#1-3, 6), 608 (#26-28, 31-34, 37), 609 (#51, 53, 55), 610 (#22-25, 33, 35-36), 742 (#21-23, 25-28, 35, 39-40, 42-43, 47), 743 (#64-65)
Goal 3.3: Use mathematical models to represent and understand quantitative relationships.	
Objective(s): By the end of Algebra I, the student will be able to:	
AI.3.3.1 Draw reasonable conclusions about a situation being modeled.	**SE/TE:** 266 (#24a), 273 (#22d), 290 (#50), 327 (#9b), 334 (#62b), 385 (#41b), 401 (#21b), 481 (#43), 555 (#44c), 561 (#36c), 562 (#44b), 568 (#27c), 594 (#24d), 633 (#44c)
AI.3.3.2 Develop proportional relationships to solve problems.	**SE/TE:** 145 (Example 5, Quick Check 5), 146 (#24-25), 147 (#49-51), 148 (#64), 150 (Example 1, Quick Check 1), 151, 152 (#3-6, 10-15), 153 (#16-23, 26-29), 154 (#34), 155 (#41, Checkpoint Quiz 1 #10), 166 (Examples 1-2), 167 (#1-2, 5-7), 168 (#1-4), 192 (#36-38), 194 (#26), 728 (#32), 729 (#60-62)
Goal 3.4: Analyze change in various contexts.	
Objective(s): By the end of Algebra I, the student will be able to:	
AI.3.4.1 Interpret changes to the parent function $y=x$.	**SE/TE:** 316, 317-320, 321 (#50-58, 62), 322 (#64, 72-79), 323 (#80-82), 324 (Check Skills You'll Need #1-7), 328 (#19-21), 366 (#14-19), 368 (#5-8), 372 (#14), 734 (#5-12), 735 (#52-53)

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Skills Statements	
The student will be able to:	
1. Solve problems using proportions.	**SE/TE:** 144, 145 (Examples 5-6, Quick Check 5-6), 146 (#16-31, 44-46), 147 (#49-51), 148 (#57-60, 64), 149-155, 166-167, 168 (Check Skills You'll Need #1-4), 180 (#1-3), 192 (#30-38), 194 (#10-13, 26), 247 (#3, 16), 250 (#12-15), 614 (#7-15), 692 (Check Skills You'll Need #1-3), 694 (Examples 4-5, Quick Check 4-5), 695 (#18-23), 696 (#41), 705 (#42, Checkpoint Quiz 2 #8), 717 (#45, 48), 718 (#28), 728 (#24-31), 729 (#61-62), 746 (#35-36, 38, 40, 43)
2. Determine percent of increase and decrease to solve problems.	**SE/TE:** 168 (Example 1, Quick Check 1), 169 (Example 2, Quick Check 2), 171 (#1-14, 30-38), 172 (#39-40, 42, 44), 173 (#56, 59), 180 (#64-67), 193 (#42-44), 194 (#18-21), 428 (#14-15), 728 (#34-39), 729 (#64-65)
3. Write equations and inequalities to represent data.	**SE/TE:** 120 (Example 2, Quick Check 2), 121 (Example 3, Quick Check 3), 122 (#21-23), 123 (#44-46), 124 (#70, 72-73), 127 (Example 2, Quick Check 2), 129 (#10-11), 130 (#56-58), 131 (#63, 66-68), 132 (#73-74), 155 (#48-50), 158-165, 202 (Example 5, Quick Check 5), 203 (#33-37), 204 (#64-65), 205 (#76, 79), 209 (#39-41), 21 (#85-88), 214 (Example 4, Quick Check 4), 215 (#29-30), 216 (#76, 82-83), 217 (Checkpoint Quiz 1 #9-10), 220 (Example 2, Quick Check 2), 222 (#10-11), 223 (#43), 224 (#70)
4. Solve multi-step linear equations and inequalities.	**SE/TE:** 119-125, 126-133, 134-141, 148 (#66-74), 155 (Checkpoint Quiz 1 #1-4), 158-165, 173 (#60-65), 180 (Checkpoint Quiz 2 #1-3), 191 (#6-15), 192 (#16-26), 193 (#39-41), 194 (#1-6), 198 (#16-29), 219-226, 232 (#59-61, Checkpoint Quiz 2 #1-5), 240 (#89-94), 244 (#31-40), 246 (#15-18, 25-28), 247 (#8, 10), 306 (#7-12), 315 (#78-83), 328 (#27-32), 330 (#1-6), 356 (#30-35), 369 (#6)
5. Solve one-variable compound inequalities.	**SE/TE:** 228, 229 (Example 5, Quick Check 5), 230 (#5-16, 21-28, 33-38), 231 (#42-45), 232 (Checkpoint Quiz 2 #6), 245 (#44-49), 246 (#21-24), 730 (#27-35)
6. Solve one-variable absolute value equations and inequalities.	**SE/TE:** 235-240, 245 (#53-66), 246 (#31-34), 247 (#7), 730 (#42-50), 731 (#66-68)

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7. Model real-world events using linear systems with no more than two variables.	**SE/TE:** 375 (Example 2, Quick Check 2), 377 (#13-14, 24), 378 (#39), 379 (#46), 383 (Example 3), 384 (#18, 22-24), 385 (#40-41), 386 (#44, Checkpoint Quiz 1 #9-10), 388 (Example 2, Quick Check 2), 389 (Example 4, Quick Check 4), 391 (#7-8, 15-16), 392 (#29-30, 41, 45), 393 (#46), 395 (#4), 396-403, 410 (#55-56), Checkpoint Quiz 2 #7-8), 422 (#19, 24, 25-29), 424 (#17-19), 736 (#13-18), 737 (#31-38)
8. Solve linear systems of equations and inequalities involving two variables using multiple strategies.	**SE/TE:** 374-379, 380-381, 382-386, 387-393, 394-395, 396-402, 403, 412 (Example 1, Quick Check 1), 413 (Example 3, Quick Check 3), 414 (Example 4, Quick Check 4, #4-9), 415 (#10-15, 20-22), 416 (#23-24, 35), 417 (#36-37, 43-44, 48), 418 (#52), 421 (#10-13), 422 (#14-17, 19, 20-29), 423 (#37-40), 424 (#1-2, 9-20, 22-25), 435 (#94-96), 446 (#93-95), 452 (#78-81), 459 (#99-102), 503 (#65-67), 736 (#1-18, 25-30), 737 (#31-38, 41)
9. Solve quadratic equations by factoring.	**SE/TE:** 572-577, 584 (#50-55), 609 (#32-37), 610 (#22-24), 628 (#85-90), 742 (#21-23), 743 (#64-65)
10. Relate the factors of a quadratic equation to the solutions of the equation *(x-r)(x-s)=0, (x=r and x=s)* and to the points ((r,0) and (s,0)) where the graph of the function crosses the x-axis.	**SE/TE:** 565, 566 (Example 1a, Quick Check 1a), 567 (#1-9), 568 (#38a), 570 (Checkpoint Quiz 1 #9-10), 571
11. Determine whether a relation is a function given graphs, charts, ordered pairs, mappings, or equations.	**SE/TE:** 257 (Example 1, Quick Check 1), 258 (Example 2, Quick Check 2), 259 (#1-8), 260 (#21-23, 25-26, 32-35, 37-40), 261 (#52), 262 (Checkpoint Quiz 1 #9-10), 300 (#19-23), 302 (#3-5), 719 (#7), 732 (#11-14)
12. Define and interpret relations and functions numerically, graphically, and algebraically.	**SE/TE:** 27-32, 37 (#26, Checkpoint Quiz 2 #1), 48 (#26-27), 49 (#28-30), 50 (#20-22), 54 (#17-29), 252-256, 257-262, 263-269, 270-276, 277-283, 284-291, 297 (#82-103), 299-300, 301 (#32-48), 302 (#1-23, 28-30), 306 (#13-15), 315 (#76-77), 324-328, 335 (#5), 338, 339 (Quick Check 5), 340 (#31-35), 341 (#64), 349 (#86-89)
13. Use patterns of change in function tables to develop the concept of rate of change.	**SE/TE:** 309 (Example 1, Quick Check 1), 312 (#1-2), 336 (Check Skills You'll Need #1-3), 338 (Examples 4-5, Quick Check 4), 339 (Quick Check 5), 340 (#31-35), 341 (#64)

IDAHO CONTENT STANDARDS FOR ALGEBRA I	PAGE(S) WHERE TAUGHT (If submission is not a text, cite appropriate resource(s))
14. Identify domain and range for given graphs, charts, ordered pairs, and mappings.	**SE/TE:** 29 (Example 4, Quick Check 4), 30 (#7-8, 12a), 37 (#26), 48 (#26-27), 264 (Quick Check 2b), 257 (Example 1), 258 (Evaluating Functions), 259 (Example 4, Quick Check 4, #17-20), 260 (#21-23, 27-30), 261 (#41d), 262 (#5-8), 268 (#48-56), 269 (#1-2), 300 (#15-18), 302 (#6-7), 324 (Example 1), 326 (#6c, 8b), 327 (#13b), 328 (#18), 638 (Example 1, Quick Check 1), 640 (#1-9, 30-31), 657 (#53-56), 658 (#39-42), 725 (#44), 732 (#5-10), 733 (#43-45), 735 (#54-55), 744 (#31-36)
15. Evaluate functions written in function notation.	**SE/TE:** 259 (Examples 3-4, Quick Check 4a, c, #9, 11-13, 16), 260 (#27-28, 30), 261 (#43-46, 49-50), 262 (Checkpoint Quiz 1 #5-7), 263 (Quick Check 1b), 264 (Examples 2-3a, Quick Check 2), 265 (Examples 3b, 4b, Quick Check 4a), 266 (#1-3, 5, 7, 18-19, 22-23), 267 (#27, 31-33, 35), 268 (#47-56), 270 (Check Skills You'll Need #7-9), 271 (Example 2b, Quick Check 2b), 272 (#17b, 18b), 273 (#21b, 22b), 274 (#35b), 275 (#41, 43-44), 297 (#98-99, 102-103), 300 (#24-25), 302 (#8-9), 372 (#12b), 428 (#16-17), 468 (Example 1b, Quick Check 1b-1c), 469 (Example 2, Quick Check 2), 470 (Example 4, Quick Check 4a, #1-2, 4, 6), 471 (#25, 27-28, 31)
16. Given one or more of the following: a. the graph of a line b. written description of a situation that can be modeled by a linear function c. two or more collinear points d. a point and slope, then the student will do one or more of the following:	
a. write the equation or inequality in slope-intercept, point-slope, and standard form.	**SE/TE:** 318 (Example 3, Quick Check 3), 320 (#22-27), 321 (#57b), 322 (#66-71), 323 (#82), 324 (Example 1), 325 (Quick Check 1, #1-3), 326 (#5b, 6a, 7b), 327 (#12a, 13a, 14a), 328 (#18-21), 332 (Example 5, Quick Check 5), 333 (#36b, 37b), 334 (#47a, 48, 58-61), 335 (#68, 69a), 337 (Examples 2-3, Quick Check 2-3), 339 (#10-30), 340 (#36-53), 341 (#60a, 61), 349 (#77-82), 350 (Example 1), 351 (Quick Check 1), 352 (#1-5), 353 (#6), 354 (#12b, 13b), 355 (#18b), 356 (#23b)
b. graph the resulting equation or inequality	**SE/TE:** 322 (#79b), 324 (Example 1), 325 (Quick Check 1, #1-3), 326 (#6b), 327 (#13a), 366 (#19b), 368 (#31b)
c. interpret the solution in light of the context	**SE/TE:** 325 (Example 2, Quick Check 2), 326 (#4a), 334 (#62), 366 (#19d)

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d. evaluate the equation or inequality for a given value	**SE/TE:** 320 (#40b), 321 (#57c, 58b), 326 (#7c), 327 (#12b, 14b), 340 (#54b), 341 (#60b-c, 64), 366 (#19c)
e. create a table of values	*An opportunity to address this standard can be found on:* **SE/TE:** 319 (Example 5, Quick Check 5), 320 (#40), 321 (#57-58), 322 (#63, 79), 323 (#82), 324 (Example 1), 325 (Quick Check 1, Example 2, #1-3), 326 (#4-7), 327 (#9, 11-13), 328 (#15, 18), 331 (Examples 2-3, Quick Check 2-3), 334 (#38-46, 58-61), 335 (#69), 341 (#64, 70-75), 350 (Example 1), 351 (Quick Check 1), 353 (#6), 354 (#12, 13), 355 (#18, 20), 356 (#23), 366 (#19), 367 (#38), 368 (#5-8, 31, 36-37), 734 (#21-26)
f. find and interpret the slope (rate of change) and intercepts in relation to the context.	**SE/TE:** 308-315, 318 (Example 3, Quick Check 3), 320 (#22-27), 321 (#57c, 58a), 322 (#66-71, 73, 79c), 325 (Example 2, Quick Check 2), 326 (#4), 327 (#327 (#9b), 334 (#65), 335 (Checkpoint Quiz 1 #5), 337 (Example 3), 338 (Example 4, Quick Check 4, Example 5), 339 (Quick Check 5, #19-30), 340 (#31-53), 341 (60), 343-349, 365 (#6-13), 366 (#17-22, 30-32), 367 (#33-36), 368 (#3-4, 13-16, 21-24)
17. Compare and contrast the graphs of $x=k$, $y=k$, $y=kx$ and $y=kx+b$ where k and b are rational numbers.	**SE/TE:** 282 (#47), 316, 331, 335 (Checkpoint Quiz 1 #10)
18. Identify $y=ax^2+bx+c$ as a quadratic function where a, b, and c are constants with $a=1$ or $a=-1$.	**SE/TE:** 557, 560 (#3, 5-11, 13), 561 (#23-25, 27-28), 570 (#51, 54, Checkpoint Quiz 1 #3), 608 (#20), 610 (#13)
19. Identify the graph of a quadratic function as a parabola that opens up when $a=1$ and down when $a=-1$, and relate c to where the graph of the function crosses the y-axis.	**SE/TE:** 551, 552 (Example 4, Quick Check 4), 554 (#14-15, 17, 22, 24-25, 28), 555 (#40-41, 48a), 556 (#51), 557 (Check Skills You'll Need #5-6), 560 (#5-10), 563 (#50, 53, 55), 570 (#51-52, 54, 56), 604 (#37, 39-40), 607 (#6, 8, 11-12), 608 (#17), 610 (#1, 9-10, 13), 742 (#5-6)

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Suggested vocabulary compound inequality, direct variation, inverse variation, domain, range, function, equation, function notation *(f(x))* , half-plane, inequality, intersecting lines, linear, parabola, roots, zeros, parallel, perpendicular, percent of increase and decrease, point-slope form, proportion, quadratic equation in standard form, rate of change, relation, slope, slope-intercept form, solution, standard form, system of linear equations, x-intercept, y-intercept, zero product property, addition and multiplication properties of equality.	
Standard 4: Concepts and Principles of Geometry	
No objectives at this course level.	
Standard 5: Data Analysis, Probability, and Statistics	
Rather than looking at statistics and algebra as separate entities, these concepts will be interwoven throughout the course. The study of graphs and functions will be conducted in conjunction with real data sets to further develop the natural link between statistics and algebra.	
Maintenance Concepts for Standard 5	
• Analyze and interpret tables, charts, and graphs including frequency tables, scatter plots, broken line graphs, line plots, bar graphs, histograms, circle graphs, and stem-and-leaf plots.	**SE/TE:** 2 (#17-18), 23 (#81), 33-37, 38-39, 41 (Example 1, Quick Check 1), 42 (Example 4, Quick Check 4), 43 (Example 5), 44 (#18-19, 25), 45 (#29-30, 33), 49 (#31, 36-38), 50 (#13-15, 17-18), 52-53, 252-256, 263-269, 304-305, 306 (#6), 350, 351 (Quick Check 1), 352 (#5), 354 (#12-13), 355 (#18, 20), 356 (#23, Checkpoint Quiz 2 #9), 357, 769, 770, 771, 772, 773, 774
• Explain and justify conclusions drawn from tables, charts, and graphs.	**SE/TE:** 34 (Example 2), 35 (#6-11, 13-14), 36 (#15-17), 37 (Checkpoint Quiz 2 #5), 38 (#2, 4, 7-9), 39 (#12, 15), 41 (Example 1, Quick Check 1), 44 (#25), 49 (#31), 50 (#13), 52 (#1b-2, 3b, 4), 53 (#8, 10, 12), 252 (Example 1, Quick Check 1), 253 (Example 2, Quick Check 2), 254 (#1-11), 255 (#12, 14-15, 17-18), 263 (Quick Check 1a), 304 (#4, 8), 305 (#12, 13c, 14b), 769 (#5), 770 (#2), 771 (#1c-1d), 774 (#9c), 775 (#1-4), 776
• Collect, organize, and display data with appropriate notation in tables, charts, and graphs, including scatter plots, broken line graphs, line plots, bar graphs, histograms, and stem-and-leaf plots.	**SE/TE:** 33 (Quick Check 1), 35 (#1-2), 36 (#15), 37 (#5a), 44 (#14-17), 45 (#29-30), 49 (#31a), 50 (#17), 53 (#5-7, 9, 12), 253 (Example 2, Quick Check 2), 254 (#5-8, 11), 255 (#13, 17), 263-265, 266 (#1-9, 10b-10c, 11-23, 24b), 267 (#26a, 26c-35, 37a, 38-40, 41c), 268 (#46-47), 304 (#5-6), 305 (#9a, 11, 13a-b, 14), 306 (#6, 13-15), 350 (Example 1), 351 (Quick Check 1), 352 (#5), 353 (#6), 354 (#12a, 13a), 355 (#18a, 20a), 356 (#23a), 357 (#1-3)
• Choose and calculate the appropriate measure of central tendency—mean, median, and mode.	**SE/TE:** 41 (Example 1, Quick Check 1), 43 (#1-4), 44 (#25a-25b)

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• Explain the significance of distribution of data, including range, frequency, gaps, and clusters.	*An opportunity to address this standard can be found on:* **SE/TE:** 35 (#1-5), 38, 40-45, 49 (#32-38), 50 (#17-18), 52-53, 98 (#58-61), 196-197, 242, 255 (#17), 291, 355 (#18), 482 (#54), 304-305, 426-427, 546-547, 603 (#28-29), 367 (#5), 642 (#59), 661 (#13), 724 (#28-32), 725 (#48-49), 734 (#41), 735 (#62), 769-774
• Model situations of probability using simulations.	**SE/TE:** 100 **Data Analysis and Probability Workbook:** 97-99, 101-106
• Recognize equally likely outcomes.	**SE/TE:** 93 **Data Analysis and Probability Workbook:** 51-52 *An opportunity to further address this standard can be found on:* **SE/TE:** 94-99
• Explain that probability ranges from 0% to 100% and identify a situation as having high or low probability.	**SE/TE:** 93 **Data Analysis and Probability Workbook:** 62
• Make predictions based on experimental and theoretical probabilities.	**SE/TE:** 95 (Example 5, Quick Check 5), 96 (#27b, 28b), 98 (#61e), 99 (#10), 107 (#2) **Data Analysis and Probability Workbook:** 84-87
• Conduct statistical experiments and interpret results using tables, charts, or graphs.	**SE/TE:** 45 (#30), 53 (#12), 98 (#61), 107, 255 (#17), 305 (#13-14), 355 (#18), 357 (Activity)
• Use proportionality and the basic understanding of probability to make and test conjectures about the results of experiments and simulations	**SE/TE:** 114-115 **Data Analysis and Probability Workbook:** 65, 84-87, 93-106
Goal 5.1: Collect, organize, and display data using a variety of formats.	
No objectives at this course level.	
Goal 5.2: Select and use appropriate statistical methods to analyze data.	
Objective(s): By the end of Algebra I, the student will be able to:	
AI.5.2.1 Make predictions and draw conclusions based on measures of central tendency.	**SE/TE:** 44 (#23, 25c, 27) **Data Analysis and Probability Workbook:** 34-39, 41
AI.5.2.2 Make predictions using linear relations, scatter plots, trend lines, charts, and tables.	**SE/TE:** 34 (Quick Check 2b), 36 (#15d), 340 (#54b), 341 (#60c), 350 (Example 1), 354 (#13c-d, 16b, 17), 355 (#18, 20b-20c), 356 (#23c), 357 (#6), 367 (#38b), 368 (#36b, 37b)

IDAHO CONTENT STANDARDS FOR ALGEBRA I	PAGE(S) WHERE TAUGHT (If submission is not a text, cite appropriate resource(s))
Goal 5.3: Develop and evaluate inferences and predictions that are based on data.	
No objectives at this course level.	
Goal 5.4: Understand basic concepts of probability.	
No objectives at this course level.	
Skills Statements	
The student will be able to:	
1. Find missing data when given an expected mean.	**SE/TE:** 41 (Example 2), 43 (#5-8), 45 (#32), 489 (#2) **Data Analysis and Probability Workbook:** 34-35, 39, 41
2. Graph scatter plots, sketch line of best fit, and identify positive and negative correlations.	**SE/TE:** 33, 34 (Example 2), 35 (#1-13a, 14a), 36 (#15a-b, 16d, 21), 37 (#23, Checkpoint Quiz 2 #5a-b), 49 (#31), 50 (#13), 306 (#6), 350 (Example 1), 351 (Quick Check 1), 352 (#1-5), 353 (#6), 354 (#12-13), 355 (#18, 20), 356 (#23, Checkpoint Quiz 2 #9), 357 (#3, 5)
3. Write the equation of the line of best fit.	**SE/TE:** 351-356, 357 (#7), 363 (#49-50), 367 (#37, 38a), 368 (#36a, 37a), 734 (#41c), 735 (#62)
4. Make correct decisions relating to statistical data.	**SE/TE:** 35 (#14b), 357 (#6b)
5. Predict how changes in data (such as inclusion/exclusion of additional data or outliers) will affect measures of central tendency and line of best fit.	**SE/TE:** 41 (Quick Check 1a), 42 (Quick check 2), 44 (#24b), 45 (#32, 35)
Suggested vocabulary Line of best fit, positive and negative correlation.	