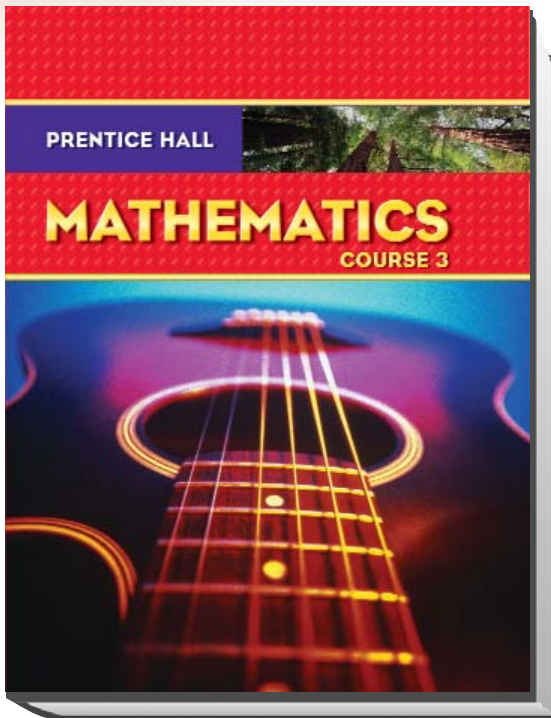


# Prentice Hall *Mathematics, Course 3* © 2008



C O R R E L A T E D T O  
Oregon Mathematics Content Standards  
Grade 8

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**Correlated to:**  
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**(Grade 8)**

***Prentice Hall Mathematics, Course 3 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 overviewing 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.
- **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.
  - **TeacherEXPRESS CD-ROM** – Powerful lesson planning software, Teacher's Edition, and Teaching Resources.
  - **PresentationEXPRESS CD-ROM** – Complete support for digital presentations of lessons including videos, activities, stepped-out examples, quick check assessments, online active math, and Mindpoint Quiz Show to review chapters.
  - **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 Text 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.
  - **StudentEXPRESS CD-Rom** – Interactive Textbook, Homework Video Tutors, Active Math Interactivities and Student Worksheets
  - **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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<b>OREGON MATHEMATICS CONTENT STANDARDS FOR GRADE 8</b>	<b>PAGE(S) WHERE TAUGHT (If submission is not a book, cite appropriate location(s))</b>
Grade 8	
It is essential that these standards be addressed in contexts that promote problem solving, reasoning, communication, making connections, and designing and analyzing representations.	
8.1 <u>Algebra</u> : Analyze and represent linear functions, and solve linear equations and systems of linear equations.	
8.1.1 Translate among contextual, verbal, tabular, graphical, and algebraic representations of linear functions.	<b>SE/TE:</b> 533-538, 540-543, 553
8.1.2 Determine the slope of a line and understand that it is a constant rate of change.	<b>SE/TE:</b> 527-530, 540-541
8.1.3 Identify and interpret the properties (i.e. slope, intercepts, continuity, and discreteness) of linear relationships as they are shown in the different representations and recognize proportional relationships ( $y/x = k$ or $y = kx$ ) as a special case.	<b>SE/TE:</b> 129-132, 527-530, 532, 534-536, 553
8.1.4 Use linear functions and equations to represent, analyze and solve problems, and to make predictions and inferences.	<b>SE/TE:</b> 130-134, 153, 537-538, 540-545, 553
8.1.5 Relate systems of two linear equations in two variables and their solutions to pairs of lines that are intersecting, parallel, or the same line.	<b>SE/TE:</b> 532
8.1.6 Use informal strategies (e.g., graphs or tables) to solve problems involving systems of linear equations in two variables.	<b>SE/TE:</b> 544-545
8.2 <u>Data Analysis</u> and <u>Algebra</u> : Analyze and summarize data sets.	
8.2.1 Organize and display data (e.g., histograms, box-and-whisker plots, scatter plots) to pose and answer questions; and justify the reasonableness of the choice of display.	<b>SE/TE:</b> 419-421, 423, 462, 483-442, 444-447, 463, 464
8.2.2 Use measures of center and spread to summarize and compare data sets.	<b>SE/TE:</b> 412-414, 417, 462
8.2.3 Interpret and analyze displays of data and descriptive statistics.	<b>SE/TE:</b> 412-414, 417, 424-426, 427, 428-432, 433-436, 438-440, 443, 444-448, 450-452, 456-459, 460, 463,
8.2.4 Compare descriptive statistics and evaluate how changes in data affect those statistics.	<b>SE/TE:</b> 480-483
8.2.5 Describe the strengths and limitations of a particular statistical measure, and justify or critique its use in a given situation.	<b>SE/TE:</b> 412-414

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8.2.6 Use sample data to make predictions regarding a population.	<b>SE/TE:</b> 480-483, 500, 505
8.2.7 Identify claims based on statistical data and evaluate the reasonableness of those claims.	<b>SE/TE:</b> 475-476, 428-432
8.2.8 Use data to estimate the likelihood of future events and evaluate the reasonableness of predictions.	<b>SE/TE:</b> 444-448
8.3 <u>Geometry</u> and <u>Measurement</u> : Analyze two- and three-dimensional spaces and figures by using distance and angle.	
8.3.1 Use properties of parallel lines, transversals, and angles to find missing sides and angles, and to solve problems including determining similarity or congruence of triangles.	<b>SE/TE:</b> 302-306, 307-311, 312-316, 323-326, 346-347
8.3.2 Use models to show that the sum of the angles of any triangle is 180 degrees and apply this fact to find unknown angles.	<b>SE/TE:</b> 323-327, 347
8.3.3 Use models and logical arguments to show that the sum of the angles of any quadrilateral is 360 degrees, and apply this fact to find unknown angles.	<b>SE/TE:</b> 324-327, 347
8.3.4 Use models to explore the validity of the Pythagorean Theorem, and use it to find missing lengths.	<b>SE/TE:</b> 111-115, 118-121, 126, 153, 158, 199-200, 204
8.3.5 Apply the Pythagorean Theorem to find distances in a variety of 2- and 3-dimensional contexts, including distances on coordinate graphs.	<b>SE/TE:</b> 112-115, 118-121, 126, 153, 158, 199-200, 204
8.3.6 Use models and referents to explore and estimate square roots.	<b>SE/TE:</b> 106-110, 116-117, 152