

**GLENCOE
MATHEMATICS**

Oklahoma Guide to Daily Intervention



**For use with
*Glencoe Geometry***



Glencoe

New York, New York
Columbus, Ohio
Chicago, Illinois
Peoria, Illinois
Woodland Hills, California



The McGraw-Hill Companies

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8787 Orion Place
Columbus, OH 43240-4027

ISBN 0-07-860383-8

Oklahoma Geometry
Guide to Daily Intervention

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Teacher's Guide to Using the Guide to Daily Intervention

Today it is vital that students understand the mathematics that they are learning. Using computers on the job, making good consumer choices, evaluating information, and other life skills depend upon good mathematics skills. Since no two students are exactly the same, in every classroom there will be students of various abilities and skill levels. This booklet focuses on ways that teachers can intervene to assist the struggling student to improve his or her performance. Helping all students succeed in mathematics and develop their mathematical reasoning skills is an ambitious and worthwhile goal.

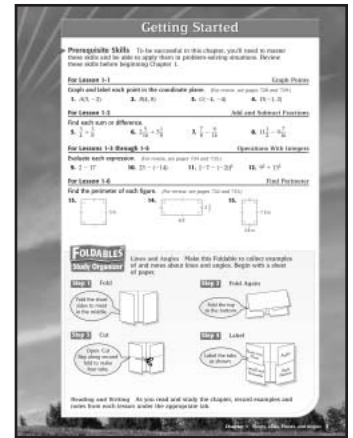
In order to ensure students' success, teachers can follow a three-step process of daily intervention.

- 1. Assessment of individual student needs** Teachers need to evaluate the needs of students in order to meet those needs.
- 2. Ongoing evaluation of student progress** Monitoring students' progress and understanding on a daily basis allows a teacher to head off trouble.
- 3. Monitoring instructional activities to strengthen students' weaknesses** Providing opportunities for students to immediately address any weaknesses ensures students' continued success.

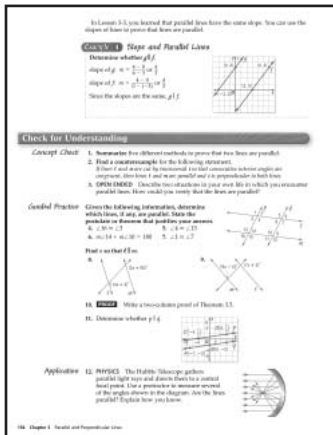
The *Glencoe Geometry* program includes tools for daily intervention in the Student Edition, the Teacher Wraparound Edition, the Teacher Classroom Resources, the Internet, and other products. Using these tools can help you help your students realize mathematical success. The following pages detail each resource available and the correlation shows how they are used in each lesson of *Glencoe Geometry*.

Daily Intervention in the Student Edition

- Every item of the **Oklahoma PASS Mathematics Content Standards** is correlated to a lesson in *Glencoe Geometry*.
- In the Getting Started section at the beginning of each chapter in the Student Edition, the **Prerequisite Skills** check students' preparedness for the chapter. You can check prior knowledge by reviewing prerequisite topics and explaining how these prerequisite topics are related to the current concept.
- Additional practice of **Prerequisite Skills** is provided at the end of each lesson with page references to help students review the concepts. These exercises review concepts and skills that will be applied in the next lesson. The Prerequisite Skills section in the Student Handbook in the back of the Student Edition provides explanation and practice of skills that are needed for success in geometry.



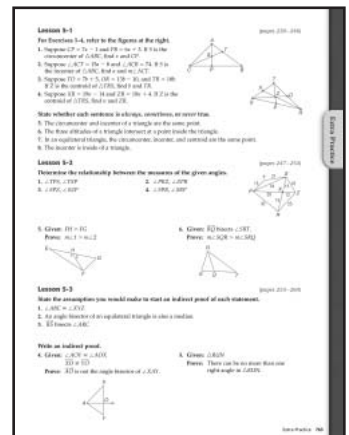
Geometry Student Edition, p. 5



Geometry Student Edition, p. 154

- You can use the **Check for Understanding** exercises in class to ensure that all students understand the concepts.
- **Concept Check** Students communicate their understanding of the concepts just taught by defining, describing, and explaining mathematical concepts.
- **Guided Practice** These exercises present a representative sample of the exercises in the Practice and Apply section. A key is provided in the Teacher Wraparound Edition that correlates the exercises to the corresponding examples. **Find the Error** exercises help students identify and address common errors before they occur.
- **Application** Students have the opportunity to solve a real-world or mathematical connection problem as a check for understanding.

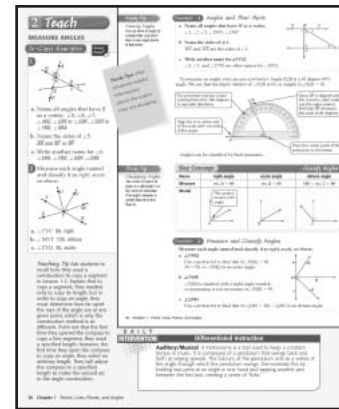
- **Extra Practice**, located in the back of the Student Edition, provides additional, immediate practice with the skills and concepts from each lesson.
- **Mixed Problem Solving and Proof**, also in the back of the Student Edition, includes numerous verbal problems for students to reinforce their problem-solving skills.



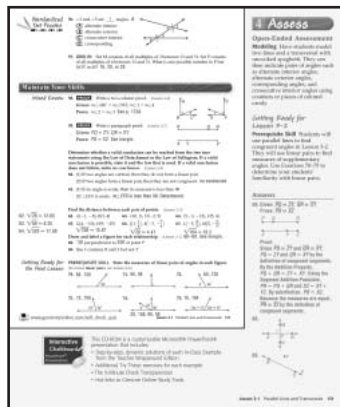
Geometry Student Edition, p. 763

Daily Intervention in the Teacher Wraparound Edition

- **Daily Intervention** features provide suggestions for addressing various learning styles and helping students who are having difficulty.
- The **Differentiated Instruction** suggestions are keyed to eight commonly-accepted learning styles.
- **Unlocking Misconceptions** suggestions help you analyze where students make common errors so you can point these trouble spots out to them.



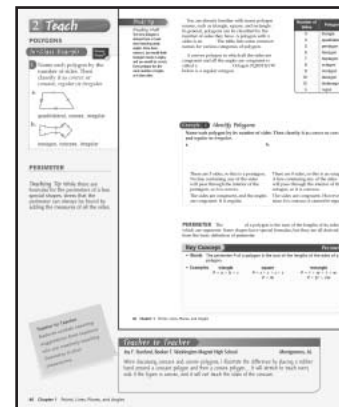
Geometry Teacher Wraparound Edition, p. 30



Geometry Teacher Wraparound Edition, p. 131

- Each lesson ends with **Open-Ended Assessment** strategies for closing the lesson and ensuring that students understand and can apply the concepts. These strategies for bringing closure to the lesson are addressed through writing, modeling, and speaking.

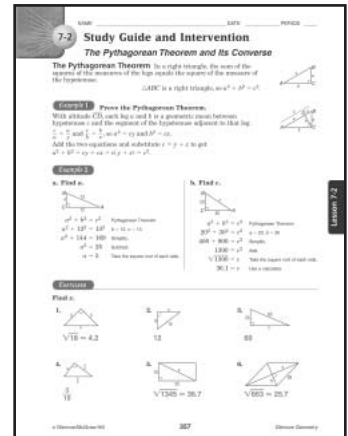
- **Teacher to Teacher** features contain teaching suggestions from teachers who are successfully teaching Geometry in their classrooms. Suggestions include content tips, techniques, and activities that can be used in intervention.



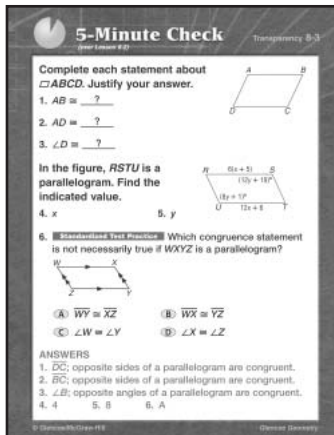
Geometry Teacher Wraparound Edition, p. 46

Daily Intervention in the Teacher Classroom Resources

- The **Study Guide and Intervention** masters found in the Chapter Resource Masters summarize key concepts for each objective and provide practice exercises. These masters are also available as a consumable **Study Guide and Intervention Workbook**. You may wish to use these masters for additional instruction and practice with individual students, in cooperative groups, or in peer tutoring situations.



Geometry Chapter 7 Resource Masters, p. 357



Geometry 5-Minute Check Transparency 8-3

- **5-Minute Check Transparencies with Standardized Test Practice**
For each lesson, there is a full-size transparency with questions covering the previous lesson or chapter. Also included on each transparency is a Standardized Test Practice question. These provide an excellent ongoing opportunity for checking students' understanding of the mathematics they are learning.

Daily Intervention on the Internet

- **Online Study Tools** These comprehensive review and intervention tools are available anytime, anyplace, simply by logging on to:


www.geometryonline.com

- **Self-Check Quizzes** are available for every lesson. Immediate feedback lets the student know whether the answers are correct and references specific pages and examples in the Student Edition for review. Access the Self-Check Quizzes directly at:

www.geometryonline.com/self_check_quiz

The screenshot shows the 'Self-Check Quizzes' page for Geometry © 2004, Lesson 11-5, 'Volume of Prisms and Cylinders'. It features a navigation menu on the left with options like 'Back Home', 'Lesson Resources', 'Extra Examples', 'Self-Check Quizzes', 'USA TODAY', 'Related Activities', 'Data Updater', 'Career Choices', and 'Parent and Student Study Guide'. The main content area contains two problems:

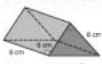
1. Find the volume of the right cylinder to the nearest tenth.



C A. 245.0 m^3 C B. 188.5 m^3
C C. 282.7 m^3 C D. 1131.0 m^3

[Hint](#)

2. Find the volume of the right prism.



C A. 216 cm^3 C B. 144 cm^3
C C. 192 cm^3 C D. 264 cm^3

- **Extra Examples** that mimic the ones in the Student Edition are completely worked out and available for students to review at:

www.geometryonline.com/extra_examples

You may wish to use these examples in reteaching or to have students review areas of weakness.

- **Vocabulary Review** lets you and your students check their understanding of the terms and definitions used in each chapter. Access this game-style review at:

www.geometryonline.com/vocabulary_review

The screenshot shows the 'Chapter Review' section for Geometry Chapter 12, 'Concentration'. It features a grid of 16 cards on the left, each with a geometric shape. On the right, two cards are visible with the text 'surface area' and 'the sum of the areas of all a solid's surface'. At the bottom, there are buttons for 'MATCH' and 'INSTRUCTIONS', and a progress indicator showing '2/6' and '33.3%'.

Daily Intervention with Other Resources

SKILL 44 Name _____ Date _____ Period _____

Solving Inequalities

Inequalities are sentences that compare two quantities that are not equal. The symbols below are used in inequalities.

Symbol	Words
$<$	less than
$>$	greater than
$<=$	less than or equal to
$>=$	greater than or equal to
\neq	not equal to

Inequalities usually have more than one solution.

Example Solve $2x + 1 > 5$. Show the solution on a number line.
 $2x + 1 - 1 > 5 - 1$ Undo addition.
 $2x > 4$
 $\frac{2x}{2} > \frac{4}{2}$ Undo multiplication.
 $x > 2$

To graph the solution on a number line, draw a circle at 2. Then draw an arrow to show all numbers greater than 2.

Solve each inequality. Graph the solution on a number line.

- $y + 7 < 12$
- $2x - 1 \geq 9$
- $m - 3 < 8$
- $6x > 18$
- $1 + 2k \leq 15$
- $\frac{z}{2} > 3$

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Prerequisite Skills Workbook, p. 87

- The **Prerequisite Skills Workbook** provides extra practice on basic skills that are needed for success in Geometry. You may use these pages to give students an opportunity to review and refresh their skills. Topics addressed include:
 - Operations with Integers
 - Operations with Decimals
 - Operations with Fractions
 - Order of Operations
 - Solving Equations and Inequalities
 - Measures in the Metric and Customary Systems
 - Probability

- The **GeomPASS: Tutorial Plus** CD-ROM provides an interactive, self-paced tutorial for a Geometry curriculum. The lessons are correlated directly to *Glencoe Geometry*. Each lesson, or concept, includes a pretest, tutorial, guided practice, and posttest. Students' answers to the pretests automatically determine whether the tutorial is needed for that concept—without taking teacher time to grade it. This software is designed to identify and address student weaknesses.

Slope Tutorial 41

Slope and the Tangent Ratio

The tangent ratio of an acute angle in a right triangle can be found by using the slope of the line containing the hypotenuse of the triangle.

$$\text{tangent} = \frac{\text{length of side opposite the angle}}{\text{length of side adjacent to angle}}$$

Navigation icons: Skip, Notes, Calculator, Back, Next

Student Remediation Plan

Teacher Instructions

You can use the Student Remediation Plan template that follows to plan for students who are in need of intervention/remediation. It can be used for high stakes tests, if there is no formal remediation plan required by your school or district. It can also be used for mid-semester reviews or project-based work.

Purpose

- To identify students' specific problem areas and link them to steps that can produce attainable results.
- To provide a template to easily record remediation plans and use them to communicate with students and/or parents.

Suggested Uses

- *Involve students in their Remediation Plans.*

Hold a teacher-student conference to go over the details of the remediation plan. Make certain they understand what they are to do, and have them sign a copy of their plan as a sign of good faith.

- *Involve parents as much as possible.*

You may also wish to involve parents in the remediation plan, if the situation is appropriate. Like your students, make sure the parents understand the steps their child should take to improve his or her performance in your class.

- *Identify common steps and resources that can be used for different levels of remedial study.*

Try to identify several sets of steps and resources for at least two different levels of student need. For example, you might identify a course of action for students who need a small amount of extra work, and one for those that need a great deal of extra study in the identified academic area.

Then, as you identify students in need of intervention, you can choose their level and the appropriate remediation plan. While you will probably want to customize the plan per student, you will at least have a defined set of steps with which to begin. After the semester ends, you can then evaluate each plan's success rate and determine what can be revised to improve each set of actions or resources.

Student Remediation Plan

Student _____ Teacher _____

Course _____ Date _____

Topic/Project/Exam _____

Problem Area	Solution Steps to Be Taken	Resources Needed