

**GLENCOE
MATHEMATICS**

Pre-Algebra

North Carolina Guide to Daily Intervention



Glencoe

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*North Carolina Pre-Algebra
Guide to Daily Intervention*

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Teacher's Guide to Using the North Carolina 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.

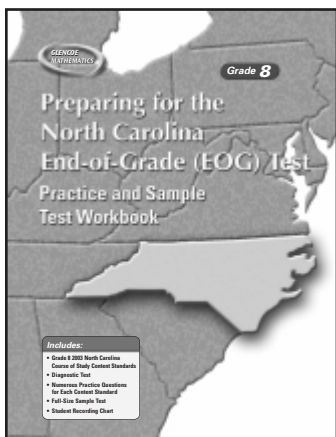
The *Glencoe Pre-Algebra* program includes tools for daily intervention in the Student Edition, the Teacher Wraparound Edition, the Teacher Classroom Resources, the Internet, and other products. Using these tools can help you help your students realize mathematical success. The following pages detail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

Daily Intervention for North Carolina Students and Teachers



This booklet contains correlations to materials available from Glencoe/McGraw-Hill that can assist you in preparing your students for success on the North Carolina End-of-Grade 8 test, including correlations between every lesson in *Glencoe Pre-Algebra* and the North Carolina Standard Course of Study, Grade 8. A list of these standards is included for your convenience.

In addition, this booklet contains correlations between the North Carolina Student Edition of *Glencoe Pre-Algebra* and the following workbooks:



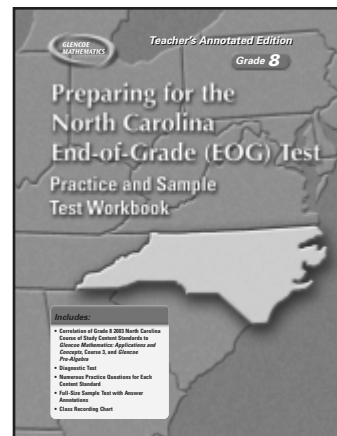
Preparing for the North Carolina End-of-Grade (EOG) Test Practice and Sample Test Workbook, Grade 8, Student Edition

Preparing for the North Carolina End-of-Grade (EOG) Test Practice and Sample Test Workbook, Grade 8, Student Edition

This workbook includes practice for each North Carolina Standard Course of Study standard tested on the End-of-Grade 8 test. Also included is a diagnostic test and a sample test. Each item in the diagnostic and sample test is also referenced by standard so students can track their proficiency using the student recording chart. This chart allows students to pinpoint standards where they need additional practice. A list of the North Carolina Standard Course of Study is also included.

Preparing for the North Carolina End-of-Grade (EOG) Test Practice and Sample Test Workbook, Grade 8, Teacher's Annotated Edition

In the Teacher's Annotated Edition of the *Glencoe Preparing for the North Carolina End-of-Grade (EOG) Test Practice and Sample Test Workbook*, Grade 8, answers are printed full-size, in place on the student pages of the diagnostic and sample test pages. A correlation of the North Carolina Standard Course of Study, Grade 8, to *Glencoe Pre-Algebra* is also included. A class recording chart allows you to quickly see on which standards your students need additional practice.

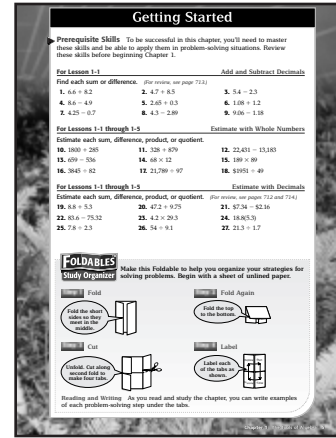


Preparing for the North Carolina End-of-Grade (EOG) Test Practice and Sample Test Workbook, Grade 8, Teacher's Annotated Edition

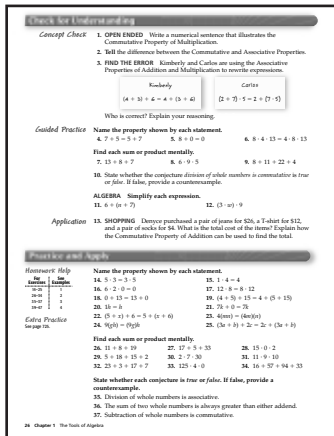
Daily Intervention in the North Carolina Student Edition



- Every lesson in *Glencoe Pre-Algebra* is correlated to a corresponding **North Carolina Standard Course of Study** standard. This allows you to easily see which standards are being addressed as you teach from your textbook.
- In the Getting Started section at the beginning of each chapter in the North Carolina 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 North Carolina Student Edition provides explanation and practice of skills that are needed for success in pre-algebra.



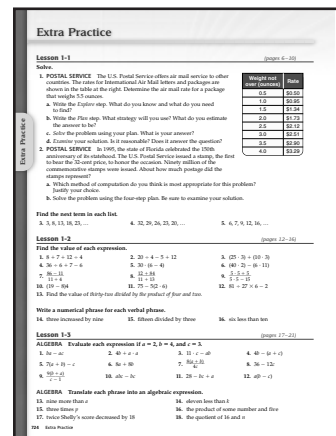
Pre-Algebra North Carolina Student Edition, p. 5



- 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 North Carolina 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.

Pre-Algebra North Carolina Student Edition, p. 26

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



Pre-Algebra North Carolina Student Edition, p. 724

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** in English and Spanish. You may wish to use these masters for additional instruction and practice with individual students, in cooperative groups, or in peer tutoring situations.

NAME _____ DATE _____ PERIOD _____

1-7 Study Guide and Intervention

Scatter Plots

A scatter plot is a graph that shows the relationship between two sets of data. In a scatter plot two sets of data are plotted as ordered pairs on a coordinate system. A scatter plot may show a positive or negative relationship of the data. The relation may be positive or negative, or there may be no relationship.

Example SCHOOL The table shows Miranda's math quiz scores for the last five weeks. Make a scatter plot of the data.

Since the points are showing an upward trend from left to right, the data suggest a positive relationship.

Week	Score
1	50
2	75
3	65
4	72
5	80

Miranda's Quiz Scores

Exercise

FOOD For Exercises 1-3, use the table below which shows the fat grams and calories for several snack foods.

Food	Fat grams per serving	Calories per serving
doughnut	12	200
corn chips	13	250
pudding	3	150
cake	15	280
walnut crackers	6	180
ice cream (light)	5	130
popcorn	2	70

Snack Food Data

1. Make a scatter plot of the data in the table.

2. What do the x-coordinates represent? y-coordinates?

3. Is there a relationship between fat and calories? Explain.

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Chapter 1 Resource Masters, p. 31

5-Minute Check
(over Lesson 1-6) Transparency 1-7

Refer to the graph for Questions 1-5.

Name the point which corresponds to the ordered pair.

1. (2, 5) 2. (4, 3)

Write the ordered pair that names each point.

3. Q 4. T

5. Determine the domain and range of the relation.

6. **Standardized Test Practice**
What point lies on both the x-axis and the y-axis?

(1, 1) (0, 1)
 (0, 0) (1, 0)

ANSWERS

1. P
2. R
3. (3, 2)
4. (5, 4)
5. domain = {1, 2, 3, 4, 6}; range = {0, 2, 3, 4, 5, 6}
6. C

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5-Minute Check Transparency 1-7

- **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.

- Parents or guardians may need specific advice for helping students make improvements. It may help to engage in frequent correspondence, encourage parental monitoring of homework, and provide parents with a schedule of students' assignments. The **Parent and Student Study Guide Workbook** contains a one-page worksheet for each lesson in the North Carolina Student Edition and a one-page review for each chapter. This workbook offers an excellent opportunity for students and parents to work together to strengthen weaknesses and develop mathematical understanding.

NAME _____ DATE _____ PERIOD _____

1-6 Ordered Pairs and Relations

(Pages 33-38)

In mathematics, you can locate a point by using a **coordinate system**. The coordinate system is formed by the intersection of two number lines that meet at their **zero points**. This point is called the **origin**. The horizontal number line is called the **x-axis** and the vertical number line is called the **y-axis**.

You can graph any point on a coordinate system by using an **ordered pair** of numbers. The first number in the pair is called the **x-coordinate** and the second number is called the **y-coordinate**. The coordinates are your directions to the point.

Example
Graph the ordered pair (4, 3).

• Start at the origin. The x-coordinate is 4. This tells you to go 4 units right of the origin.
• The y-coordinate is 3. This tells you to go 3 units up.
• Draw a dot. You have now graphed the point whose coordinates are (4, 3).

Try These Together
Use the grid below to name the point for each ordered pair.

1. (2, 3) 2. (6, 2)
3. (3, 4) 4. (1, 5) 5. (4, 1)

Exercise
Use the grid at the right to name the point for each ordered pair.

6. (2, 5) 7. (1, 5) 8. (6, 2)

9. (6, 4) 4. (6, 7) 5. (7, 6)
6. (2, 5) 7. (1, 5) 8. (6, 2)

Use the grid to name the ordered pair for each point.

9. R 10. C 11. Q 12. J
13. W 14. P 15. J 16. M

17. **Standardized Test Practice** On the grid above, what would you have to do to the ordered pair for point R to get the ordered pair for point P?
A. Add 4 to the x-coordinate. B. Add 4 to the y-coordinate.
C. Subtract 4 from the x-coordinate. D. Subtract 4 from the y-coordinate.

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Parent and Student Study Guide Workbook, p. 6

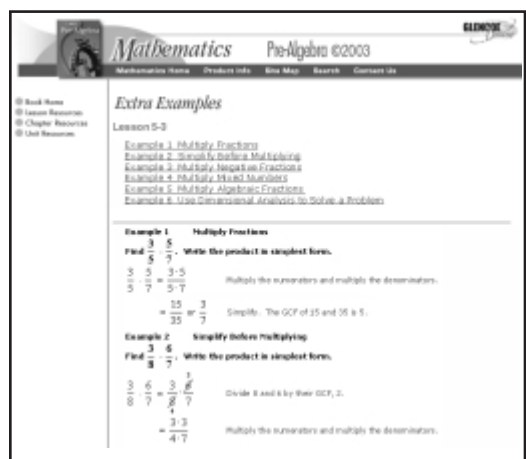
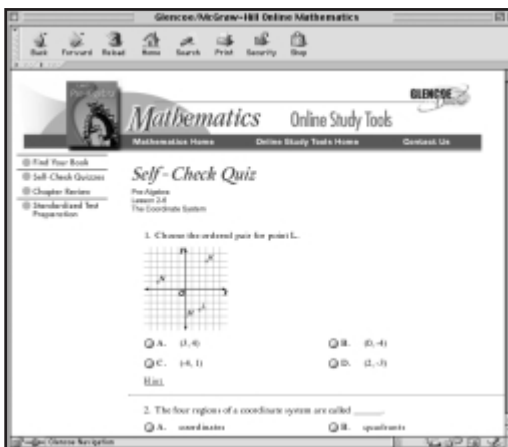
Daily Intervention on the Internet

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

 nc.pre-alg.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 North Carolina Student Edition for review. Access the Self-Check Quizzes directly at:

 pre-alg.com/self_check_quiz/nc



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

 pre-alg.com/extra_examples/nc

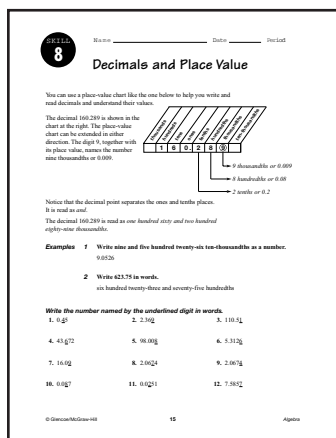
You may wish to use these examples in reteaching or to have students review areas of weakness.

- **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:

pre-alg.com/vocabulary_review



Daily Intervention with Other Resources

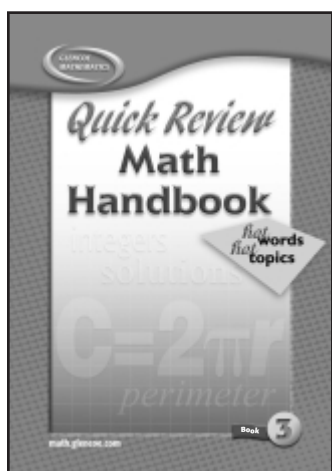
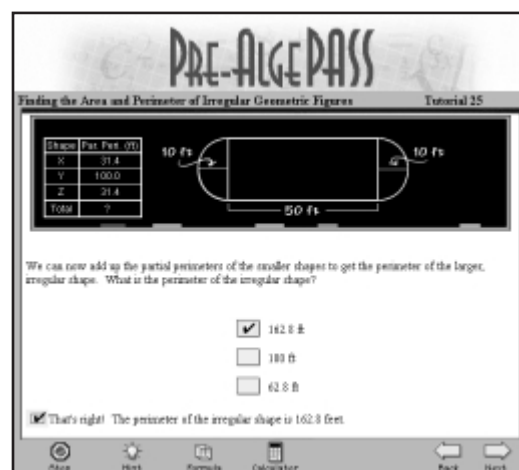


Prerequisite Skills Workbook, p. 15

- The **Prerequisite Skills Workbook** provides extra practice on basic skills that are needed for success in pre-algebra. You may use these pages to give students an opportunity to review and refresh their skills. Topics addressed include:

- Operations with Whole Numbers
- Operations with Decimals
- Operations with Fractions
- Measures in the Metric and Customary Systems
- Line Graphs
- Histograms
- Probability

- The **Pre-AlgePASS: Tutorial Plus** CD-ROM provides an interactive, self-paced tutorial for a pre-algebra curriculum. The lessons are correlated directly to *Glencoe Pre-Algebra*. 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 and is an excellent test prep aid for the North Carolina End-of-Grade 8 test.



- **Quick Review Math Handbook** is Glencoe's mathematical handbook for students. The Hot Words section includes a glossary of terms while the Hot Topics section consists of explanations of key mathematical concepts. An exercise set is included to check students' understanding of the concepts. This valuable resource can be used as a reference in the classroom or for home study.

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