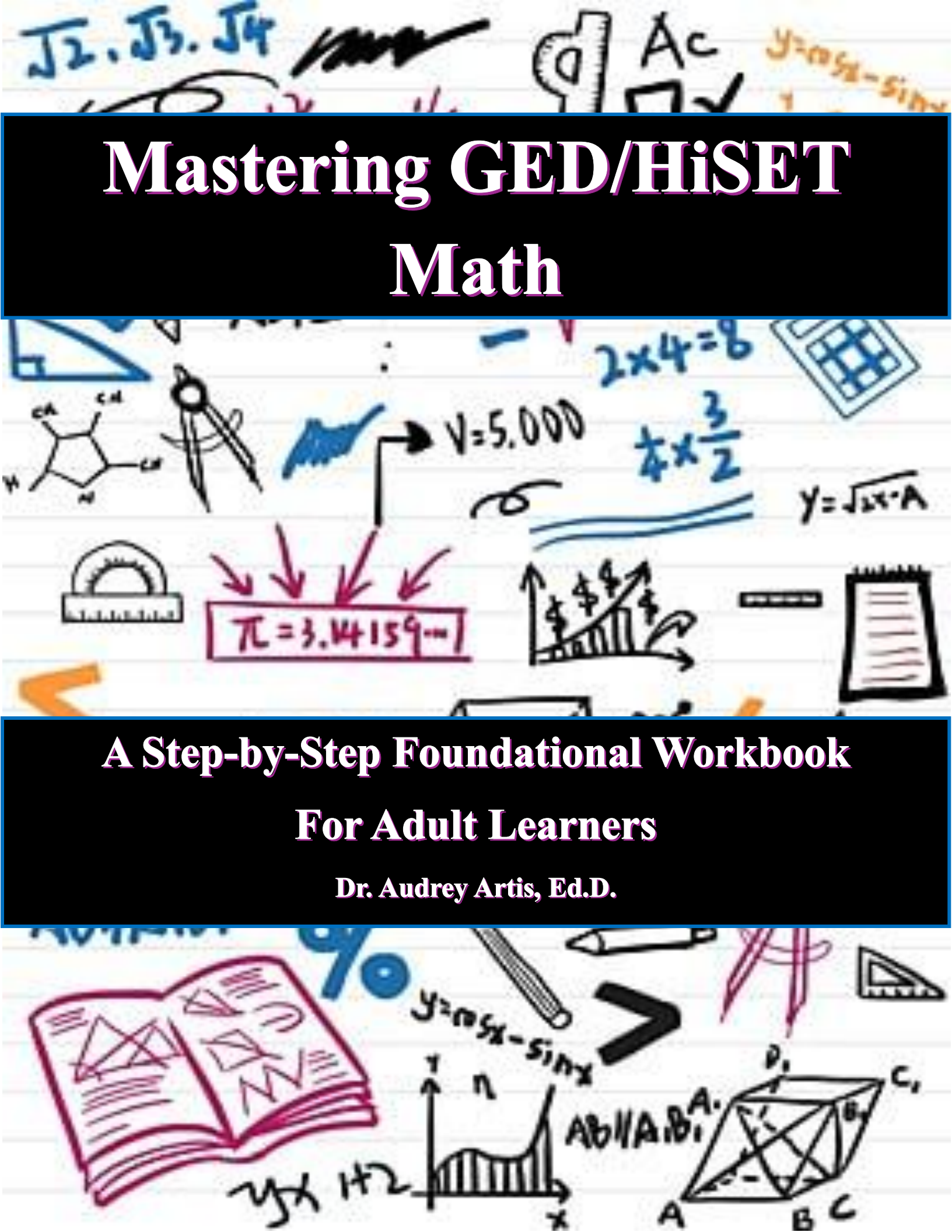




Mastering GED/HiSET Math

A Step-by-Step Foundational Workbook For Adult Learners

Dr. Audrey Artis, Ed.D.

© 2026 Dr. Audrey Artis. All rights reserved.

No part of this publication may be reproduced, distributed, transmitted, stored in a retrieval system, or shared in any form or by any means—including photocopying, scanning, recording, or digital uploading—without the prior written permission of Dr. Audrey Artis.

This curriculum is licensed exclusively for use by the purchasing individual, program, or organization. Unauthorized copying, sharing, or distribution is strictly prohibited and subject to legal action.

Table of Contents

Beginner Level

1. Understanding Numbers

- Whole numbers and integers
- Number operations (addition, subtraction, multiplication, division)
- Place value and rounding

2. Fractions and Decimals

- Converting between fractions and decimals
- Simplifying fractions
- Applying fractions and decimals in real-world scenarios

3. Basic Algebra

- Solving for x
- Combining like terms
- Applying the distributive property

4. Word Problems and Applications

- Identifying key information in problems
- Setting up and solving equations
- Real-world applications

Intermediate Level

5. Geometry Essentials

- Lines, angles, and shapes
- Area, perimeter, and volume
- Basic coordinate plane concepts

6. Linear Equations and Inequalities

- Writing and solving linear equations
- Graphing solutions
- Real-life applications

7. Data Interpretation

- Reading and analyzing tables, graphs, and charts
- Mean, median, and mode calculations

- Probability basics
- 8. Applied Math Problems**
 - Practical scenarios in finance, business, and daily life
 - Understanding ratios and proportions
 - Using formulas effectively

Advanced Level

- 9. Quadratics and Exponents**
 - Understanding and solving quadratic equations
 - Applying exponent rules
 - Scientific notation and growth patterns
- 10. Probability and Statistics**
 - Probability rules and calculations
 - Analyzing statistical data
 - Making predictions based on data
- 11. Multi-Step Problem Solving**
 - Tackling complex multi-step equations
 - Applying critical thinking to word problems
 - Using mathematical reasoning in exams
- 12. GED/HiSET Test Strategies**
 - Understanding test question formats
 - Time management techniques
 - Common mistakes to avoid
- 13. Full Practice Exams**
 - GED-style practice tests
 - HiSET-style practice tests
 - Answer keys and explanations

Beginner Level

Chapter 1: Understanding Numbers

Concept Explanation

Numbers are the foundation of math. Understanding whole numbers, integers, place value, and basic operations is essential for solving everyday problems.

Example: You buy **20 apples** at the grocery store but eat **5** throughout the week. To determine how many you have left, use subtraction: **$20 - 5 = 15$ apples remaining.**

Key Number Concepts

1. Whole Numbers vs. Integers:

- Whole numbers: **0, 1, 2, 3, ...**
- Integers: **... -3, -2, -1, 0, 1, 2, 3, ...**

2. Place Value:

- The number **3,248** has:
 - **3** in the thousands place
 - **2** in the hundreds place
 - **4** in the tens place
 - **8** in the ones place

3. Basic Operations:

- Addition: **$8 + 4 = 12$**
- Subtraction: **$15 - 7 = 8$**
- Multiplication: **$6 \times 3 = 18$**
- Division: **$20 \div 5 = 4$**

Practice Exercises

Solve the following problems:

Addition:

1. $65 + 28 =$ _____
2. $149 + 376 =$ _____