

Table of Contents

A Tour of Your Textbook
Problem Solving

Chapter 1: Coordinates and Design

Get Ready

1.1 The Cartesian Plane

1.2 Create Designs

1.3 Transformations

1.4 Horizontal and Vertical Distances

Chapter Review

Practice Test

Math Games: Going Fishing

Challenge in Real Life: Make an Animation

Chapter 2: Operations on Decimal Numbers

Get Ready

2.1 Add and Subtract Decimal Numbers

2.2 Multiply Decimal Numbers

2.3 Divide Decimal Numbers

2.4 Order of Operations and Decimal Numbers

Chapter Review

Practice Test

Math Games: Decimal Delights

Challenge in Real Life: Rounding Digits and High-Tech Crime

Chapter 3: Geometry and Measurement

Get Ready

3.1 Parallel and Perpendicular Line Segments

3.2 Draw Perpendicular Bisectors

3.3 Draw Angle Bisectors

3.4 Area of a Parallelogram

3.5 Area of a Triangle

Chapter Review

Practice Test

Math Games: Amazing Mazes

Challenge in Real Life: Bank Shots in the Game of Pool

Chapter 4: Fractions, Decimals, and Percents

Get Ready

4.1 Connect Fractions, Decimals, and Percents

4.2 Fractions, Decimals, and Percents

4.3 Applications of Percents

Chapter Review

Practice Test

Math Games: Math's A Snap

Challenge in Real Life: Fraction Converter for
Everyday Life

Chapters 1-4 Review

Task: Create a Logo

Chapter 5: Probability

Get Ready

5.1 Probability

5.2 Organize Outcomes

5.3 Probabilities of Simple Independent Events

5.4 Applications of Independent Events

5.5 Conduct Probability Experiments

Chapter Review

Practice Test

Math Games: Is It a Match?

Challenge in Real Life: Crack the Code

Chapter 6: Introduction to Fraction Operations

Get Ready

6.1 Divisibility

6.2 Add Fractions With Like Denominators

6.3 Subtract Fractions With Like Denominators

Chapter Review

Practice Test

Math Games: It's Divisible

Challenge in Real Life: Green Mathematics, Math Mosaics

Chapter 7: Add and Subtract Fractions

Get Ready

7.1 Common Denominators

7.2 Add and Subtract Fractions With Unlike Denominators

7.3 Add Mixed Numbers

7.4 Subtract Mixed Numbers

Chapter Review

Practice Test

Math Games: Fraction Race

Challenge in Real Life: Magazine Design

Chapter 8: Circles

Get Ready

8.1 Construct Circles

... Balancing Practical Experience and Research

8.2 Circumference of a Circle

8.3 Area of a Circle

8.4 Interpret Circle Graphs

8.5 Create Circle Graphs

Chapter Review

Practice Test

Math Games: Make Spinner Games

Challenge in Real Life: Winner's Circle

Chapters 5-8 Review

Task: Is This a Fair Game?

Chapter 9: Add and Subtract Integers

Get Ready

9.1 Explore Integer Addition

9.2 Add Integers

9.3 Explore Integer Subtraction

9.4 Subtract Integers

9.5 Apply Integer Operations

Chapter Review

Practice Test

Math Games: Integer Word Game

Challenge in Real Life: Virtual Reality

Chapter 10: Patterns and Expressions

Get Ready

10.1 Describe Patterns

10.2 Variables and Expressions

10.3 Evaluate Expressions

10.4 Graph Linear Relations

Chapter Review

Practice Test

Math Games: Puzzling Expressions

Challenge in Real Life: Your Life Line

Chapter 11: Solving Equations

Get Ready

11.1 Expressions and Equations

11.2 Solve One-Step Equations: $x + a = b$

11.3 Solve One-Step Equations: $ax = b$, $\frac{x}{a} = b$

11.4 Solve Two-Step Equations: $ax + b = c$

Chapter Review

Practice Test

Math Games: Equation Puzzles

Challenge in Real Life: Wrapping Gifts

Chapter 12: Working With Data

Get Ready

12.1 Median and Mode

12.2 Mean

12.3 Range and Outliers

12.4 The Effects of Outliers

12.5 Choose the Best Measure of Central Tendency

Chapter Review

Practice Test

Math Games: Data Duel

Challenge in Real Life: Managing a Business

Chapters 9-12 Review

Task: The Birthday Party

Answers/Glossary/Index

We have ordered the chapters in this textbook to reflect current educational, psychological, and brain research.

This sequence supports connections within mathematics and provides opportunity for a spiral reinforcement of concepts from one chapter to the next. Since students exhibit more than one learning style it was important to provide as much variety as possible in the arrangement of chapters in this textbook. This variety is most evident in alternating the chapters between those that are:

1. visual and symbolic
2. geometric and numeric
3. easier to motivate and more abstract

It is important to note that teachers using *MathLinks 7* may choose any order for their Grade 7 mathematics program.