

TABLE OF CONTENTS

INTRODUCTION (The Value of This Book, Teaching Suggestions, About the Author).....ii

PUZZLES..... 1-37

BALANCE TIPS (ALGEBRA CONCEPTS)..... 38-39

SOLUTIONS..... 40-46

The Value of This Book

Move over Sudoku, here come *Balance Benders*™! You can use these books as quick, fun, logic problems or as stepping-stones to success in algebra. Students develop deductive thinking and pre-algebra skills as they solve balance puzzles that are more fun and addictive than Sudoku puzzles! Students must analyze each balance to identify the clues, and then synthesize the information to solve the puzzle. Try one—and then try to stop!

Teaching Suggestions

The solution to each puzzle in this book involves one or more of the algebraic thinking concepts on pages 38-39. After you work through a few puzzles with the student, read and discuss these 10 Balance Tips with the student to make sure he is familiar with all of them. Developing these essential skills used in balancing and solving equations has never been more fun!

A student might occasionally be stumped by a puzzle so an upside-down hint is provided below each puzzle.

It often helps to remind students that the joy of puzzles is being puzzled. Do your best to keep them fun and remember that it is just as important to praise perseverance as it is to praise the correct answer.

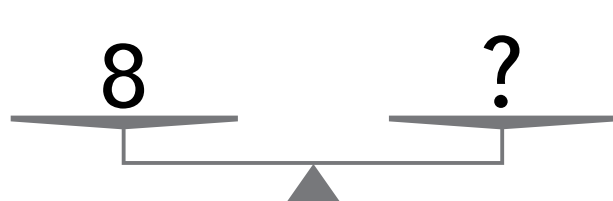
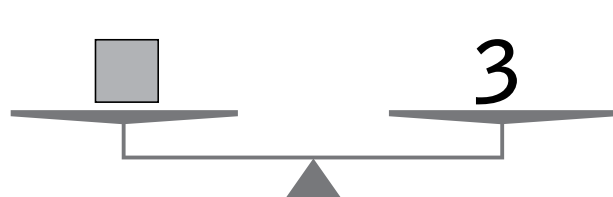
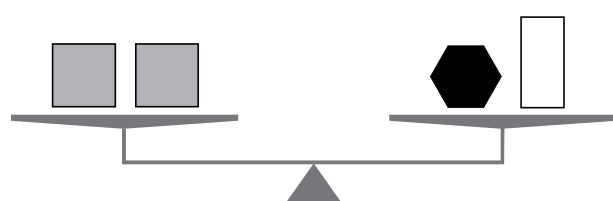
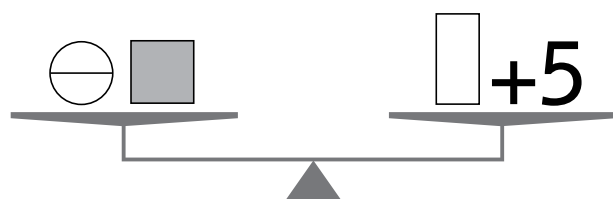
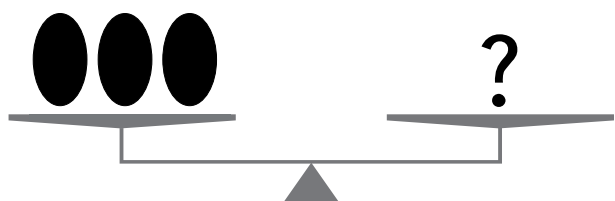
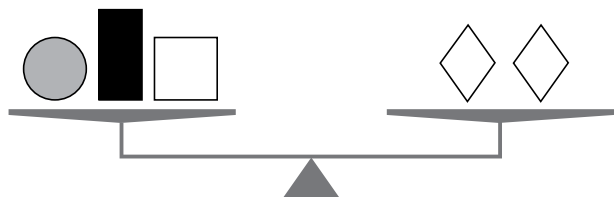
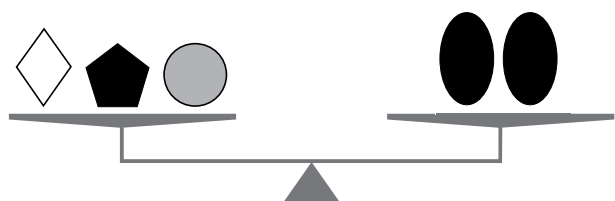
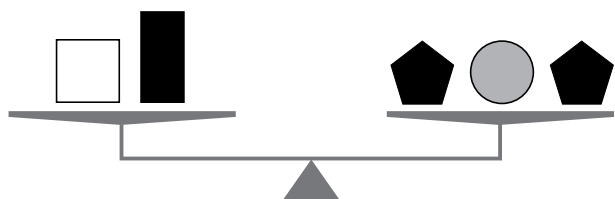
About the Author

A longtime puzzle fan, Robert Femiano is a Seattle public school elementary educator and has been for most of his 34-year teaching career. For more than a decade of this time, he was also adjunct faculty at Seattle Pacific University conducting math methods courses. Publications include *Algebraic Problem Solving in the Primary Grades* in the National Council for Teachers of Mathematics peer-reviewed journal and *Quick Thinks Math* books and software by The Critical Thinking Co.™. In 2002, he won the highest honor in education, the Presidential Award for Excellence in Mathematics and Science Teaching.

Balance Benders™



Which answer can replace the question mark?



- a.
- b.
- c.
- d.

Hint: From 1st balance, substitute for on 3rd balance.

- a.

- b.

- c.

- d.

Hint: Reverse 2nd balance and combine with 1st balance.