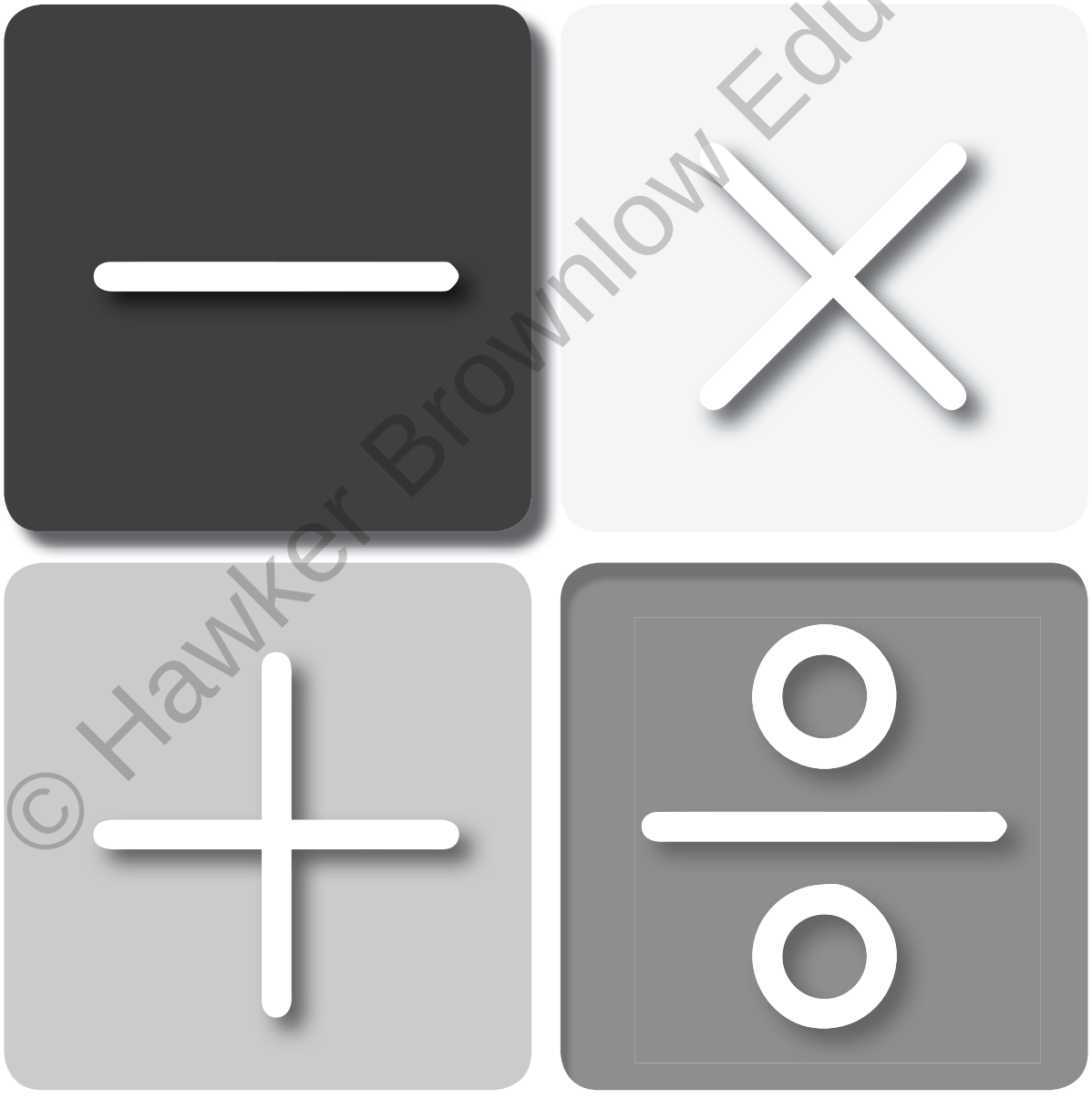
YEAR

4

AfterMaths

Workbook



Hawker Brownlow
EDUCATION

TABLE OF CONTENTS

Dear Student,

Welcome to *AfterMaths*™, a program that allows you to explore mathematics. Inside this book are 36 activities. In these activities, you will play maths games, conduct experiments, solve problems and perform "maths magic".

AfterMaths is designed to allow you to work alone, with a partner or in a small group. You will try a variety of activities. By doing these activities, you will develop your maths skills and look at maths in new ways. You also will find that maths is part of your everyday life.

Some activities use skills that you already know. Other activities add to known skills. Still other activities provide challenges. The goal is always to have fun and to learn at the same time.

A famous man named Galileo once said that mathematics is the alphabet in which the universe was created. So, enjoy the activities and begin learning that "alphabet".

You may want to have materials such as the following on hand: pencils and erasers, scrap paper, a calculator and a ruler.

This *AfterMaths* book was prepared for students by Christopher Forest.

Designed by Jamie Ruh.

PICK A NUMBER

Making Numbers

5 2 3 1 8

Carla studied the five numbers above. Help her use the five numbers to create the following numbers.

1. the largest five-digit number that uses all of the digits _____

2. the smallest five-digit number that uses all of the digits _____

3. a subtraction problem that uses all five digits to make two different numbers that have a difference of 562 _____

4. one or more addition problems that use all five digits to make two different numbers that have a sum of 343 _____

5. three different numbers that together use all five digits and equal 46 _____

_____

Magic Number

Follow these steps. Use the digits 0–9. See what magic number you get.

1. Write a two-digit number. The two digits should be different. _____

2. Reverse the number and write the new number. _____

3. Subtract the smaller number from the larger number. _____

4. Add the two digits in the answer. If the answer is a one-digit answer, just leave it alone. What is your answer? _____

Try this experiment at least two more times with different numbers. Do you always get the same answer? _____

CA5237 • 9781760015237 • © 2016 Hawker Brownlow Education

THE WINNING NUMBER

Jonathan bought three raffle tickets at the school fair. If one of his tickets is picked, he will win a prize. Read about each raffle ticket. Use the clues to figure out the number on each ticket. Then see if Jonathan won the prize.

✪Raffle Ticket One

On this ticket, the number 3 is in the tens place. In the hundreds place is the number equal to 5 – 1. In the thousands place is the number that is 2 more than the number in the hundreds place. The number in the ones place is equal to the number in the tens place, plus 1, multiplied by 0. What is the number on Raffle Ticket One?

Ticket One

Number: _____

✪Raffle Ticket Two

On this ticket, the number in the ones place is equal to 2 × 2. In the hundreds place is the number equal to the number of school days in a week. In the tens place is the number that is equal to the number in the ones place plus 5. In the thousands place is the number equal to the total number of eyes found on three people. What is the number on Raffle Ticket Two?

Ticket Two

Number: _____

✪Raffle Ticket Three

On this ticket, the number in the ones place is equal to 8 – 5. In the tens place is the number of people in a trio. In the thousands place is the number equal to the number in the ones place plus the number in the tens place. In the hundreds place is the number that is 1 less than the number in the thousands place. What is the number on Raffle Ticket Three?

Ticket Three

Number: _____

Here are clues about the winning number.

In the thousands place is the number equal to 2 less than 8. In the tens place is the number equal to the number of things in a pair. In the hundreds place is the number equal to 3 more than 2. In the ones place is the number in the hundreds place times 1.

The winning number is: _____

Did Jonathan win? _____

AfterMaths
TEACHER GUIDE

YEAR **4**

Dear teacher,

Welcome to *AfterMaths*™. This program is designed to engage students in using a variety of maths skills that will be important to them as developmental learners and as thinkers in the years ahead. Students will use critical thinking, problem solving and computation skills as they complete the 36 activities in the student book.

The activities in the *AfterMaths* student book are based on seven concepts. These concepts are numeration, number theory, measurement, geometry, pre-algebra, data interpretation and logical reasoning. A list of activities and the skills covered appears on the following page.

The activities in the *AfterMaths* student book may be applied in various ways. They may be used to supplement and reinforce classroom lessons. They may be used to extend or enrich daily lessons. Or, they may be used to provide challenges to students who enjoy experimenting with maths. The activities are designed for students to work on their own, in pairs or in small groups at their own pace.

The activities provide a variety of experiences for students, including writing, computing, experimenting, completing small projects, conducting research and playing games. A light globe icon () marks challenging creative-thinking items. Students will become aware that mathematics is not just reserved for the classroom; it is a vital part of the world around them.

Try to preview all 36 activities in the student book before assigning particular activities. Students may complete the activities in any order that fits your needs. Note that some maths experiments require the use of basic hands-on materials such as calculators, number cubes, playing cards, dominoes and rulers.

AfterMaths, Year 4 is designed specifically for students in Year 4. But, the activities can be used with advanced mathematics students in Year 3, as well as with students who require mathematics skills reinforcement in Year 5.

Enjoy the activities. Encourage students to do as many as possible. Galileo once said that mathematics is the alphabet in which the universe was created. So, let's begin to learn that alphabet.

Author: Christopher Forest

Editor: Dale Lyle

Designer: Jamie Ruh

N: Numeration
NT: Number Theory
M: Measurement
G: Geometry
PA: Prealgebra
DI: Data Interpretation
LR: Logical Reasoning

CA5275 • 9781760015275 • © 2016 Hawker Brownlow Education