

YEAR

7

AfterMaths

Workbook

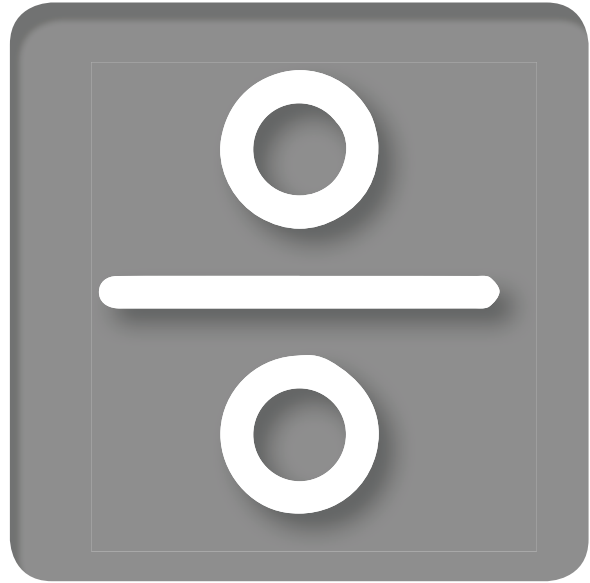
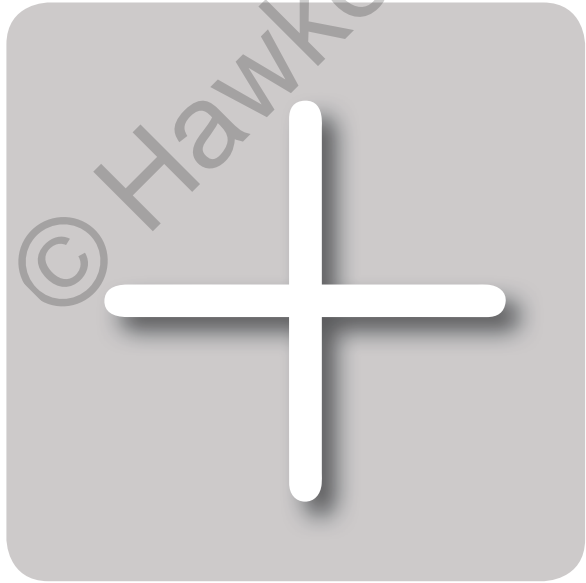
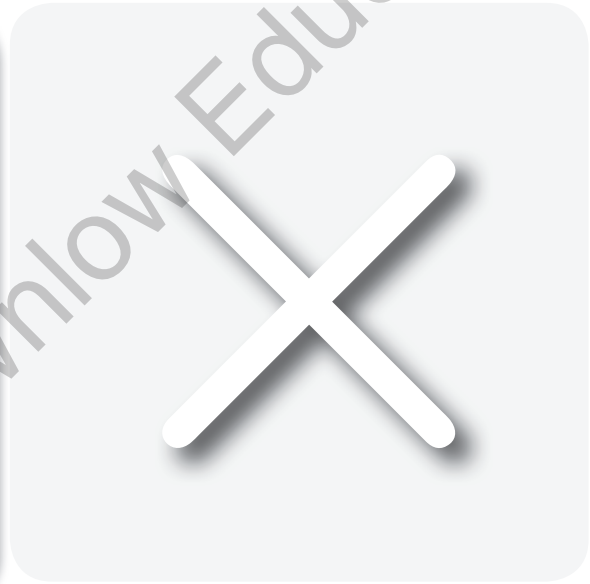
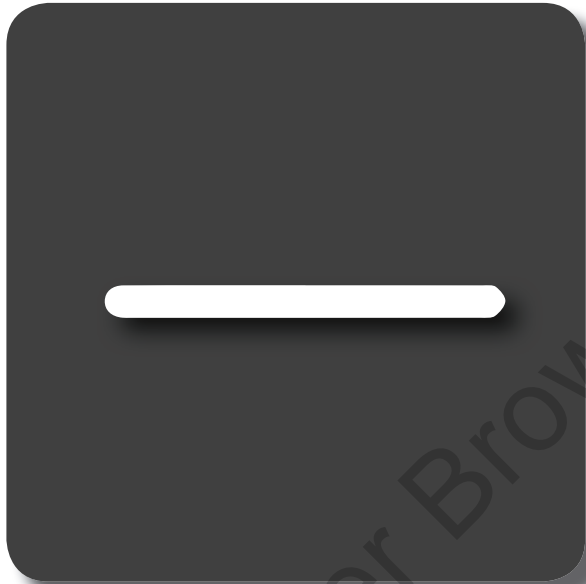


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Dear Student,

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.

“DECIMATION”

1. Here are the top ten finishers in the qualifying heat of a 200-metre race. Unfortunately, the computerised printout cannot be read. Use the clues in brackets to determine each runner's time. The first runner's time is listed for you.

Daniel Sanders:

Daniel finished at 23.71 seconds.

Gary Plumb: (Gary's time was 0.32 seconds greater than Daniel's time.)

Ty Jefferson: (Ty had the same whole-number unit of time as Gary. Ty's decimal unit of time was twice that of Gary's.)

Martin Grandoni: (Martin finished 0.46 seconds faster than Ty.)

Allan Ashburn: (Allan finished with the same whole-number unit of time as Ty and Gary. His decimal unit of time was equal to one third of Martin's decimal unit of time.)

Henry Manolo: (Henry finished 0.02 seconds faster than Allan.)

Liam O'Donnell: (Liam finished with the same whole-number unit of time as Daniel. His decimal unit of time was twice as much as Henry's decimal unit of time plus 0.11.)

Jordan Amain: (Jordan finished 0.12 seconds faster than Liam.)

Nathan Birnbaum: (Nathan finished 0.1 second after Jordan.)

Abel Benton: (Abel finished 0.36 seconds faster than Nathan.)

2. Below, write each runner's name next to his finishing position in the qualifying heat. The first one has been done for you.

Qualifying-Heat Finishers

First Place: Abel

Sixth Place: _____

Second Place: _____

Seventh Place: _____

Third Place: _____

Eighth Place: _____

Fourth Place: _____

Ninth Place: _____

Fifth Place: _____

Tenth Place: _____

3. In part 1 above, put a tick next to the name of each of the top six finishers; those runners will go on to the final race!

EVENS, ODDS AND ENDS

That's Odd

What do the odd numbers in each box have in common?

33	69	129
27	3	51

BOX ONE

9	19	11	21
15	17	23	13

BOX TWO

49	81	121
9	25	1

BOX THREE

1. BOX ONE: _____
2. BOX TWO: _____
3. BOX THREE: _____

We're Even

For each item, determine what three consecutive even numbers less than 50 are addends that produce the sum shown on the right.

1. _____ + _____ + _____ = 132
2. _____ + _____ + _____ = 96
3. _____ + _____ + _____ = 78
4. _____ + _____ + _____ = 60
5. _____ + _____ + _____ = 42
6. _____ + _____ + _____ = 24

Name That Number

Write the number described in each paragraph.

1. I am a four-digit number. My first digit is an odd number that is $\frac{1}{9}$ the size of my last digit. My middle digits make up the smallest two-digit number divisible by 3.
What number am I? _____
2. I am a five-digit number. My first digit is the largest single-digit even number. My last digit is the smallest one-digit number that evenly divides into my first digit. My middle three digits make up the number that represents 12 squared.
What number am I? _____
3. I am a six-digit number. My first digit is $\frac{1}{2}$ of my last digit. My last digit is a one-digit number divisible evenly by itself, 1, 2 and 3. My middle digits make up the amount represented by the number of cents in \$50, minus 25 cents.
What number am I? _____