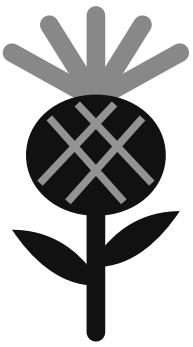
REAL-LIFE MATHS

Numeracy

Workbook for National 3 Applications of Mathematics

Unit 3: Numeracy



C. Blewis

Blewis LEARNING

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DATA AND CHANCE

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How to use this book

This book helps you use numbers with confidence in everyday life: money, time, measuring, reading graphs and judging chances. Each topic follows the same pattern, so you always know what comes next.

EACH TOPIC HAS

Opener	the story for the topic, what you will learn and the key words
Skill pages	a short explanation, a method box and a worked example
Practice pages	questions for you to try, with space for your working
Real-life task	a bigger problem that uses all the skills in the topic
Check-up	a few questions to show what you can do, and a checklist

LOOK OUT FOR

Method	the steps to follow
Worked example	a question that has been answered for you, step by step
Top tip / Watch out	helpful hints and common mistakes
Talk about it	questions to discuss with a partner or your teacher

SHOW YOUR WORKING

Write down your working in the boxes, not just the answer. It helps you check your answer, and your teacher can see how you got there.

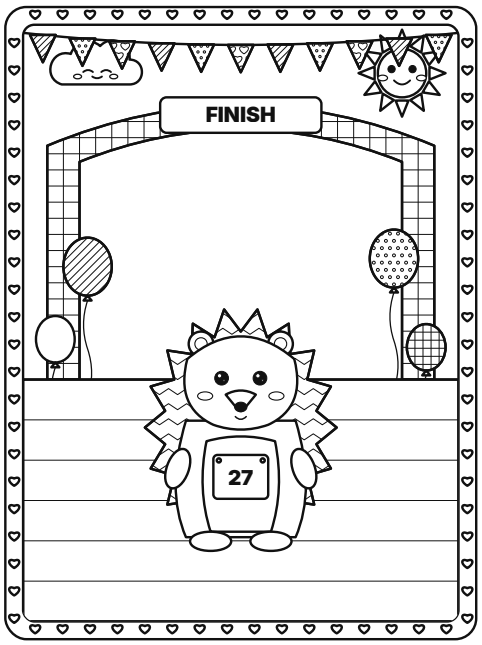
CALCULATORS

Try to work things out in your head or on paper first. You can use a calculator when the page says so, or when your teacher says it is OK.

ANSWERS

The answers are at the back of the book. Use them to check your work after you have tried the questions yourself.

Big numbers



Big numbers are all around us: crowds, distances and money. In this topic you will learn what each digit in a number is worth, and how to read, write and compare numbers up to 10,000.

Theme: the charity fun run. Every spring, Glen Arrin holds a charity fun run around Loch Arrin. Hundreds of people take part and teams raise money for the village hall. Help Ruby and Jay make sense of the big numbers.

IN THIS TOPIC YOU WILL LEARN TO

Skill 1	say what each digit in a number up to 10,000 is worth
Skill 2	write numbers in words and in figures
Skill 3	order and compare numbers using < and >
Skill 4	write money in pounds and pence using a decimal point

KEY WORDS

Digit	one of the symbols 0, 1, 2, 3, 4, 5, 6, 7, 8 or 9
Place value	what a digit is worth because of where it is in the number
Thousands	groups of one thousand (1,000)
Figures	a number written with digits, like 2,405
Order	put numbers from smallest to largest, or largest to smallest
Decimal point	the dot that separates pounds from pence, as in £3.50

❶ Place value

The fun run had **2,465** runners this year. Each digit in 2,465 has a different value, because of its **place** in the number.

METHOD

Put the number in a place value chart. Read the value of each digit from its column.

	Thousands	Hundreds	Tens	Units
2,465	**2**	**4**	**6**	**5**

WORKED EXAMPLE

What is each digit in **2,465** worth?

2 thousands	2,000
4 hundreds	400
6 tens	60
5 units	5
Check	2,000 + 400 + 60 + 5 = **2,465**

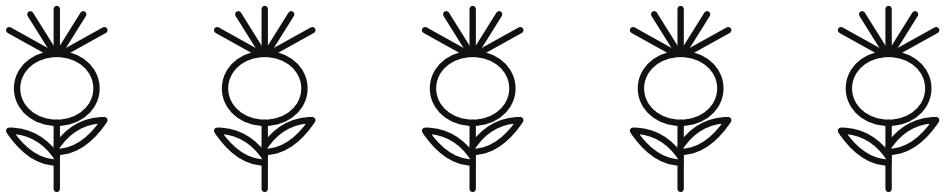
WATCH OUT

A zero holds a place. In 3,056 there are **no hundreds**, so the 0 keeps the 5 in the tens column. Without it you would have 356.

TOP TIP

Adding 10 changes the tens digit. Adding 100 changes the hundreds digit. Adding 1,000 changes the thousands digit.

DOODLE CORNER



Practice: place value

1 What is the value of the **bold** digit?

a 4,**3**82	b 1,**9**06	c **7**,051	d 5,6**2**8

2 Write these numbers in the place value chart.

	Thousands	Hundreds	Tens	Units
3,254				
6,019				
8,700				

3 Fill in the gaps.

a 4,736 = 4,000 + _____ + 30 + _____

b 9,208 = _____ + 200 + _____

4 Jay has these digit cards: **3 8 1 6**

a Make the largest number he can, using each card once.

Answer:

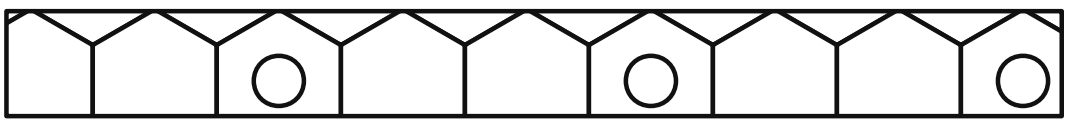
b Make the smallest number he can, using each card once.

Answer:

5 Last year 1,250 people entered the fun run. What is

a 10 more?	b 100 more?	c 1,000 more?

DOODLE CORNER



❷ Words and figures

Numbers can be written in **figures** (like 3,405) or in **words** (like three thousand, four hundred and five). Cheques, forms and signs often use words.

METHOD

Figures to words	say the thousands, then the hundreds, then the tens and units
Words to figures	write a digit for every column. Put a 0 in any empty column

WORKED EXAMPLE

a Write **3,405** in words. b Write **two thousand and sixty** in figures.

a 3 thousands, 4 hundreds, 0 tens, 5 units

three thousand, four hundred and five

b 2 thousands, 0 hundreds, 6 tens, 0 units

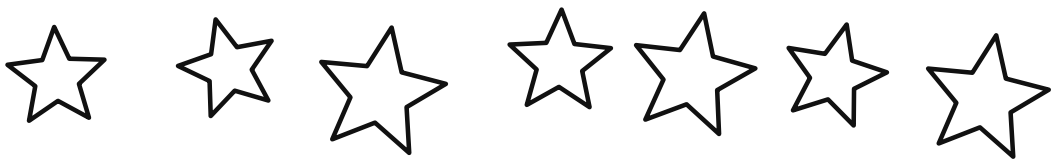
2,060

	Thousands	Hundreds	Tens	Units
2,060	**2**	**0**	**6**	**0**

WATCH OUT

Every number up to 9,999 written in figures has no more than 4 digits. If you write 20060 for two thousand and sixty, you have too many digits.

DOODLE CORNER



Practice: words and figures

1 Write these numbers of fun run entries in words.

a 2,750

Answer:

b 6,308

Answer:

c 9,014

Answer:

2 Write these numbers in figures.

a five thousand, two hundred and forty

Answer:

b one thousand and seventy-five

Answer:

c eight thousand, six hundred

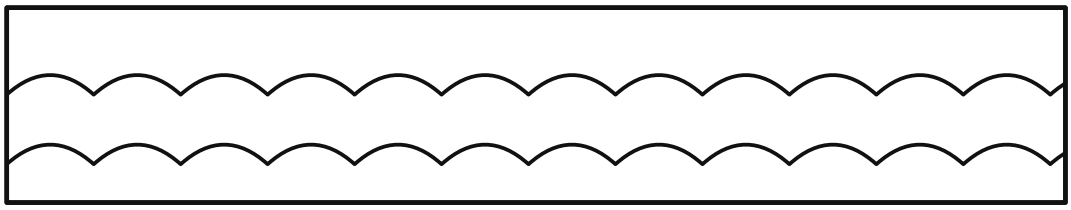
Answer:

3 Zara wrote **four thousand and fifty** as **40050**. What mistake has she made? Write the number correctly.

4 The fun run route is **three thousand, eight hundred and ninety** metres long. Write this in figures.

Answer:

DOODLE CORNER



3 Ordering and comparing

To compare two numbers, look at the **biggest place first**. Compare the thousands. If they are the same, compare the hundreds, then the tens, then the units.

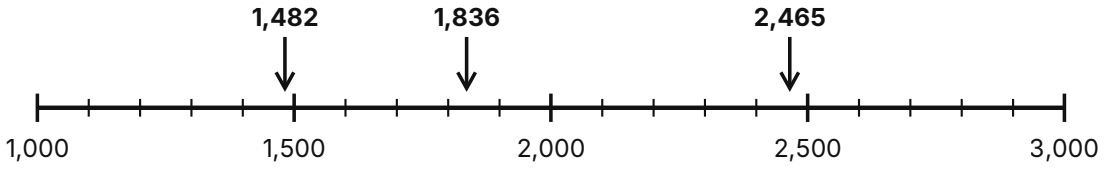
METHOD

<	means **is less than**. 3,409 < 3,490
>	means **is greater than**. 7,100 > 7,010
Remember	the symbol opens its mouth to the bigger number

WORKED EXAMPLE

Fun run entries: 2023: **1,482** 2024: **1,836** 2025: **1,809** 2026: **2,465**. Put them in order, smallest first.

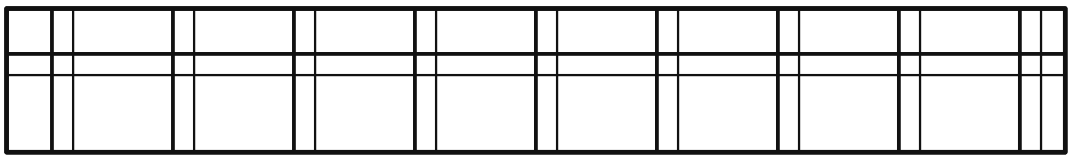
Thousands	2,465 has 2 thousands, so it is the largest
Hundreds	1,482 has 4 hundreds, so it is the smallest
Tens	1,809 and 1,836: 0 tens is less than 3 tens
Answer	**1,482, 1,809, 1,836, 2,465**



TALK ABOUT IT

The number line goes up in hundreds. Where would 1,809 go? Why is it so close to 1,836?

DOODLE CORNER



FREE SAMPLE

Numeracy (N3 Maths, Unit 3)

This sample shows a few pages. The full printed workbook is available from Amazon.

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