Contents

How to use this book 5

Revision tracker 7

Number and place value

Numbers to 9999 8

Estimating and rounding 10

Counting in steps 12

Negative numbers 14

Roman numerals 16

Calculations

Mental methods for addition and subtraction 18

Written methods for addition 20

Written methods for subtraction 22

Times tables facts 24

Mental methods for multiplication and division 26

Written methods for short multiplication 28

Written methods for short division 30

Fractions and decimals

Equivalent fractions 32

Adding and subtracting fractions 34

Tenths and hundredths 36

Fraction and decimal equivalents 38

Working with decimals 40

Measurement

Units of measurement 42

Units of time 44

Analogue and digital clocks 46

Money 48

Mass and capacity 50

Length and distance 52

Perimeter 54

Area 56

Contents

Geometry

Angles 58

Triangles 59

Quadrilaterals 60

Symmetry of 2D shapes 62

Coordinates 64

Translation 66

Statistics

Tables and pictograms 68

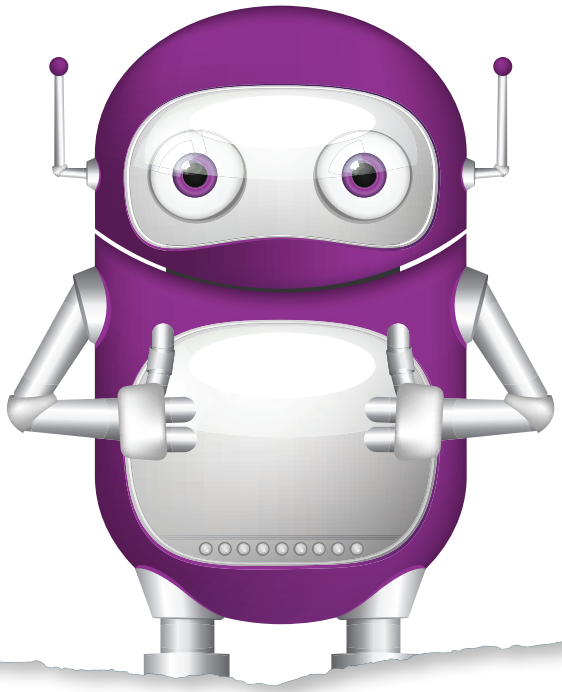
Bar charts 70

Time graphs 72

Answers **74**

Glossary **78**

Multiplication table **80**



Roman numerals

Recap

In our number system, all of our numbers are made using ten different digits.

0 1 2 3 4 5 6 7 8 9

Using place value (100s, 10s and 1s), we can use these ten digits to represent any number we wish.

Revise

There are many different number systems. One other that we still use is Roman numerals. The Romans used letters to represent some numbers.

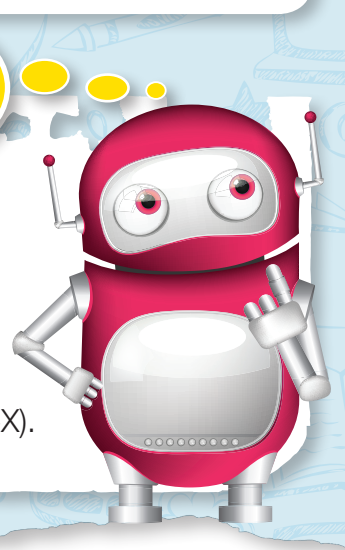
There are five Roman numerals that you need to know.

I (1) **V** (5) **X** (10) **L** (50) **C** (100)

By using these numbers together, they could make any number, but it isn't always easy! The chart below can help you to learn Roman numerals to 100.

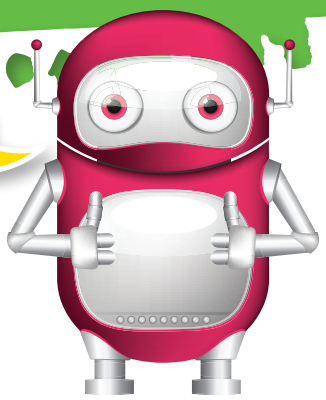
Number	1	2	3	4	5	6	7	8	9	10
Roman numeral	I	II	III	IV	V	VI	VII	VIII	IX	X
Number	11	12	13	14	15	16	17	18	19	20
Roman numeral	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX
Number	30	40	50	60	70	80	90	100		
Roman numeral	XXX	XL	L	LX	LXX	LXXX	XC	C		

Tips



- It all seems very complicated, but if you learn some important numbers it can be okay.
- Learn the Roman numerals 1 to 10 by heart. It will make other numbers easier to understand.
- Also, pay close attention to how they make 4 (IV), 9 (IX), 40 (XL) and 90 (CX).

Talk maths



I I I V X X X L C

Make a set of Roman numeral cards. It is important to have three 'one' cards, and three 'ten' cards. These can make any number between 1 and 100.
Next, challenge a friend to make numbers. You can either call out a number, such as seventy-three, or arrange some Roman numerals.
Whenever anyone gives an answer, they must explain their working out.

✓ Check

1. **Change these numbers to Roman numerals.**

   a. 4 _____ **b.** 11 _____ **c.** 25 _____ **d.** 19 _____

   e. 52 _____ **f.** 45 _____ **g.** 90 _____ **h.** 87 _____

2. **Change these Roman numerals to numbers.**

   a. VI _____ **b.** IX _____ **c.** XVII _____ **d.** XXII _____

   e. LV _____ **f.** XL _____ **g.** LXXXVIII _____ **h.** XC _____

3. **Which digit can't be shown with Roman numerals?**

   _____

⚠ Problems

Change these Roman numerals into numbers, and then complete the calculations.

Brain-teaser XIV plus XXIII

Brain-buster XCI minus LXV