



IrishMaths
Series



Maths: 4th Class

- ✓ number and algebra
- ✓ measurement and geometry
- ✓ statistics and probability

By Lisa Craig





Title: IrishMaths Series
Maths: Fourth Class

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Printed in Ireland
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Published by:

Ready-Ed Publications
PO Box 276 Greenwood WA 6024
www.readyed.net
info@readyed.com.au

ISBN: 978 186 397 993 1

Contents

Teachers' Notes	4	It's About Time Problems	34
		Time Zones	35
		What Time Is It In...?	36
		Measuring Up 1	37
		Measuring Up 2	38
		Massive Problems	39
		Present Problems	40
		Fill 'Em Up Capacity Problems 1	41
		Fill 'Em Up Capacity Problems 2	42
		Calculating Volume 1	43
		Calculating Volume 2	44
		In The Right Direction	45
Section 1: Number And Algebra		Section 3: Statistics And Probability	
Even And Odd Numbers	6	Class Pet Survey 1	47
Which Number Comes Next?	7	Class Pet Survey 2	48
Number Sequence Problems 1	8	Presenting Data	49
Number Sequence Problems 2	9	On The Data Trail	50
Wordy Numbers	10	Planning An Investigation	51
Place Value With Decimals	11	Recording Data	52
Mega Number Cards	12	Chances Are ... (Cards)	53
Mega Number Game	13	Chances Are ... (Ordering Task)	54
Subtraction Partitions	14	Related And Unrelated Events	55
Find The Missing Numbers	15		
Division Fetch	16		
Multiple Fish	17		
Galactic Word Problems (Extension)	18		
Calculator Chaos!	19		
Money Moments	20		
Checkout Champion	21		
Mixed Fractions	22		
Mixed Numerals On A Number Line	23		
Equivalent Fraction Word Problems	24		
Equivalent Fraction Tales	25		
		Answers	56-58
Section 2: Measurement And Geometry			
Symmetry in Central Australian Art	27		
Indigenous Art Symbols (Student Handout)	28		
Symmetry In Asian Art	29		
Comparing Area	30		
Comparing Angles	31		
Creating A 2D Skyline	32		
Creating 2D Shape Objects	33		

Teachers' Notes

Maths: Fourth Class is part of the *Irish Maths Series*. The activities in this book have been designed to develop mathematical skills and reasoning. Creative ways that are often connected to solving problems in real-life contexts are presented. Students will be asked to reflect upon the strategies they use to problem-solve effectively in familiar situations and will begin to recognise that mathematical understanding has an important role in other subject areas. Answers and additional teaching information are included at the back of the book. This book is divided into three sections detailed below.

Section One: Number And Algebra

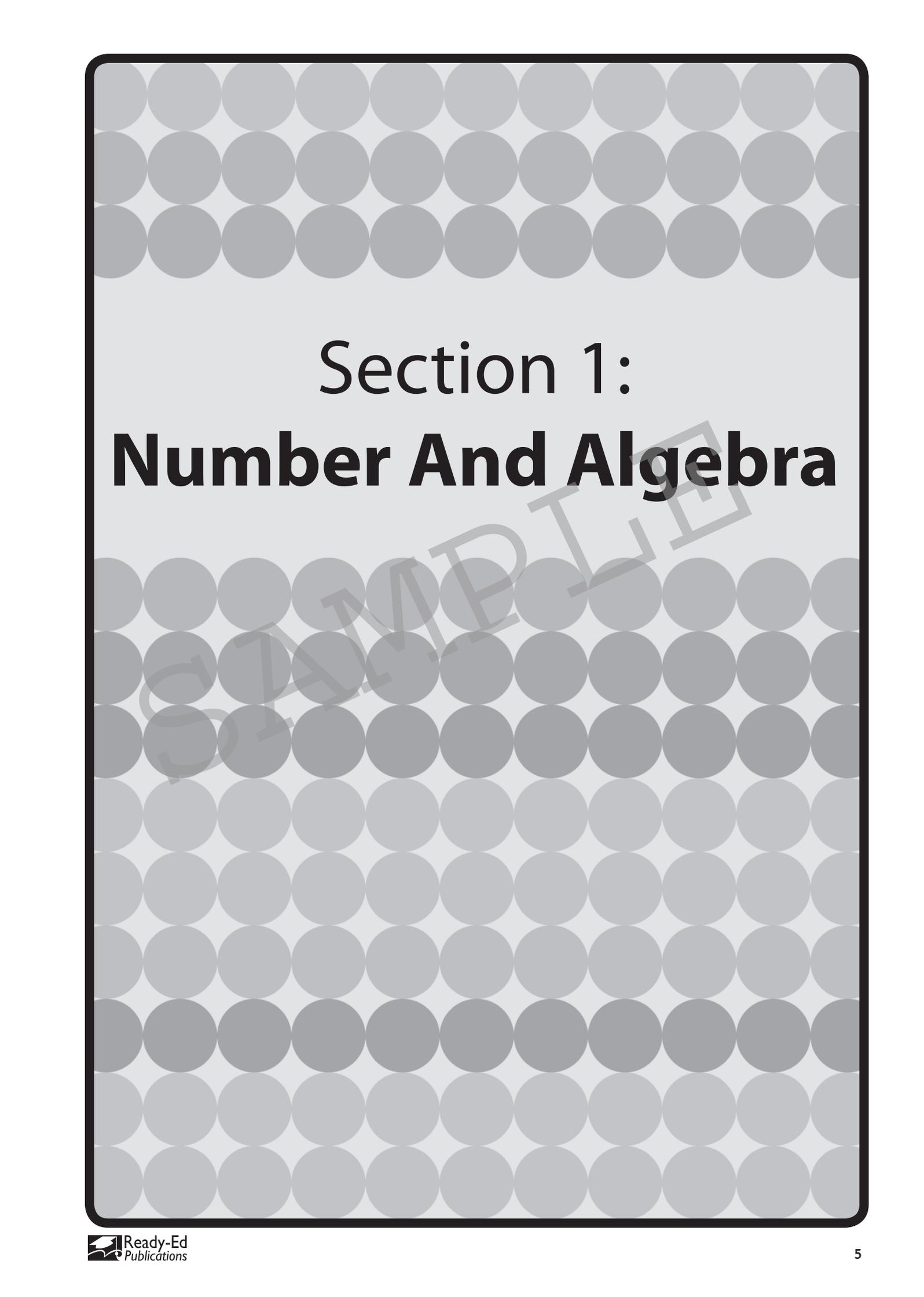
In this section, students will engage in a variety of activities that require them to demonstrate ever-increasing capability in using mental and written strategies to explore number relationships and patterns. Tasks include: using a number line to solve sequence problems; discovering the connection between even and odd numbers; and calculating change in shopping transactions.

Section Two: Measurement And Geometry

This section draws attention to the value and beauty of mathematics in the world around them. Students will be asked to consider symmetry in Indigenous Australian and Asian art to create their own symmetrical motifs. The skyline of a modern city activity focuses on architecture that incorporates and manipulates 2D shapes. Tasks involving measurement draw on everyday contexts.

Section Three: Statistics And Probability

Students will develop skills in collecting, organising and representing data in this section. The focus is on exploring research questions and evaluating the most appropriate method of collecting and representing data. Probability activities include determining the likeliness of an event occurring and whether or not one event is affected by the occurrence of another.



Section 1:

Number And Algebra

Even And Odd Numbers

1. Complete each box with a number. Shade in the box if the number is odd. (Hint: An odd cannot be divided evenly by two.)

The day of the month on which I was born:

The number of children in my class today:

The number of people who I live with:



The number of pets I've ever had:

The number of letters in all my names:

The number of my house:

The number of different places I've lived in:

2. Write down how many even numbers can be added together to get a total of 26? You can't repeat numbers! (Hint: There is more than one answer.)

3. Which two odd numbers can be added together to get a total of 54? (Hint: There is more than one answer.)

4. Circle the operation if it gives you the answer 63.

a. Adding two even numbers.

b. Adding an odd and an even number.

c. Multiplying two odd numbers together.

d. Subtracting an even number from an odd number.

5. Write down two facts about odd and/or even numbers.

Fact 1

Fact 2

Which Number Comes Next?

Work with a partner. Cut out the cards. Put them face down on the desk. Take turns picking a card. Discuss and resolve the odd and even situations on the cards.



1

I'm thinking of two numbers. Both of them are even. When I add them together, will the answer be odd or even?

odd even

2

I'm thinking of two numbers. One is odd and one is even. When I multiply these numbers together, will the answer be odd or even?

odd even

3

I'm thinking of a number. Now I double it. Will the answer be an odd or even number?

odd even

4

I'm thinking of two numbers between 1 and 20. Both numbers are odd. Will the difference between them be an odd or even number?

odd even

5

I'm thinking of four odd numbers between 1 and 20. If I add them together, will the answer be an odd or even number?

odd even

6

I'm thinking of two odd numbers less than 10. When I multiply them, will the answer be an odd or even number?

odd even

7

I'm thinking of an odd number between 1 and 50. When I multiply it by ten, will the product be an odd or even number?

odd even

8

I'm thinking of three numbers between 10 and 20. All of them are odd. When I add them together, will the answer be odd or even?

odd even

9

I'm thinking of an even number between 1 and 20. When I divide this number by two, will the answer be an even or odd number?

odd even

10

If I multiply an odd number between 1 - 10 by itself and then subtract 1, will the answer be an odd or even number?

odd even

Number Sequence Problems 1

Solve these word problems. Annotate the number lines to show how you worked out your answers.

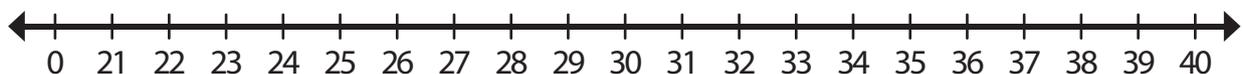
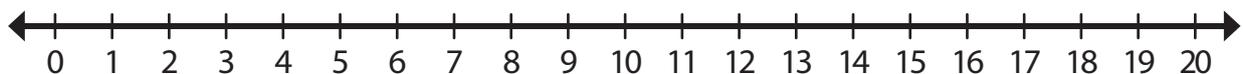
1. The Olympic Games are held every four years. How many Olympic Games have been held between 1984 (Los Angeles) and 2016 (Rio de Janeiro)?



2. The average person blinks once every 6 seconds. How many times will a person blink in 90 seconds? Draw your own number line to show your working out and answer.



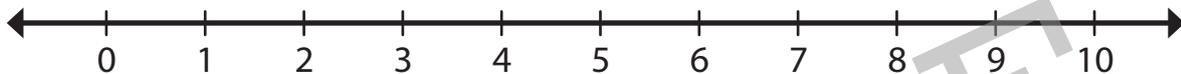
3. On Monday, Dad jogged 3 km. For the rest of the week he jogged 1 km more than the day before.
How many kilometres has he jogged this week?



Number Sequence Problems 2

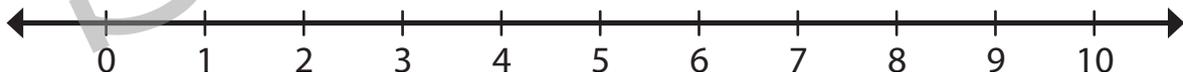
Solve these word problems. Annotate the number lines to show how you worked out your answers.

1. A child usually laughs about 9 times an hour.
How many times might a child laugh in 5 hours?



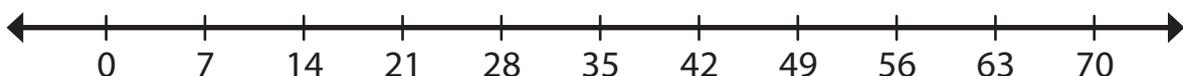
2. You collect three magic hats for successfully completing Level 1 of the Mad Hatter game. For each new level you complete, the number of hats doubles.

How many magic hats will you have won after completing Level 2?



3. You are visiting the *Keep Your Cool* waterslide park. You love the giant slide and want to cram in as many goes as you can in one hour before lunch. It takes seven minutes to go down the slide and climb back up again.

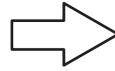
How many turns on the slide will you get before Mum calls you for lunch?



Wordy Numbers

1. Write these wordy numbers in digit form. Look at the example.

two thousand and seventeen



2,017

- a. six thousand four hundred and twenty-nine _____
- b. fourteen thousand and forty-five _____
- c. 26 hundreds + 2 tens _____
- d. 12 tens + 4 hundreds + 31 ones _____
- e. eight + five hundred + twelve thousand _____

2. What is the value of the shaded numbers?

a.

9	1	3	3
---	---	---	---

b.

2	7	9	0	4
---	---	---	---	---

c.

5	6	6	8	1
---	---	---	---	---

3. How many ...

- a. hundreds in 5, 912?
- b. tens in 9, 286?
- c. thousands in 32, 584?
- d. ten thousands in 88,300?
- e. hundreds in 50 thousands?
- f. ones in 700 tens?



Place Value With Decimals

A decimal is a fraction written using a decimal point. A number to the left of a decimal point is a whole number. The digits after a decimal point are parts of a whole number. Decimals are divided into tenths ($1/10$) and hundredths ($1/100$). $1/10$ is larger than $1/100$.

1. Write the following decimal numbers as whole numbers with fractions.
1. Look at the example to help you.

a. $15.7 \rightarrow 15 \frac{7}{10}$ **c.** 19.5 _____ **e.** 15.06 _____

b. 15.45 _____ **d.** 19.65 _____ **f.** 30.29 _____

Now, order the answers above from largest to smallest.

2. Write the decimal numbers as place values. The first one has been done for you.

DECIMAL NUMBER	HUNDREDS	TENS	ONES	DECIMAL POINT		TENTHS	HUNDREDTHS
				.			
a. six point four			6	.		4	
b. thirty five point nine							
c. two hundred point four							
d. four point zero five							
e. thirteen point zero eight							
f. point seven five							
g. sixty seven point zero one							
h. 31.33							
i. 2.67							
j. 361.04							
k. 108.86							

Mega Number Cards

Pair up. Cut out the number cards. Then play the mega number game on the following page.

0

1

2

3

4

5

6

7

8

9

0

1

2

3

4

5

6

7

8

9