MATHEMATICS

KEY STAGE 2 2003

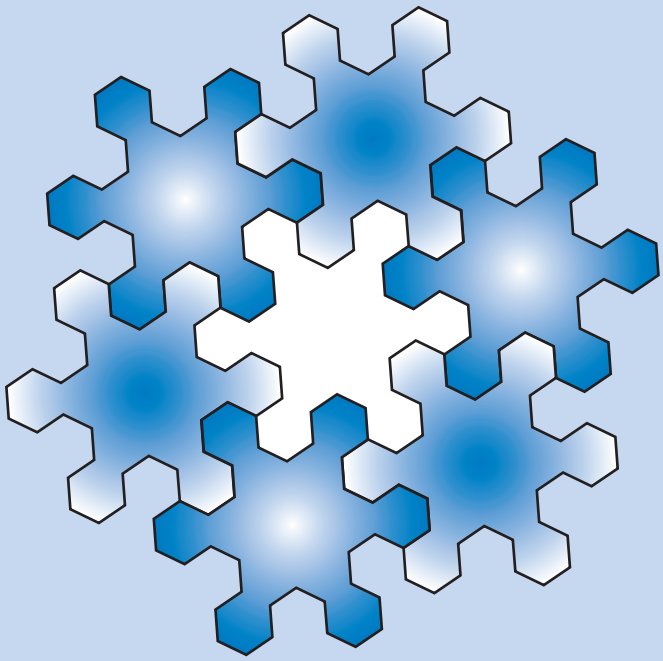
TEST B

LEVELS 3–5

CALCULATOR ALLOWED

PAGE	MARKS
5	
7	
9	
11	
13	
15	
17	
19	
TOTAL	

BORDERLINE CHECK	



First Name

Last Name

School

Instructions

You **may** use a calculator to answer any questions in this test.

Work as quickly and as carefully as you can.

You have **45 minutes** for this test.

If you cannot do one of the questions, **go on to the next one**.
You can come back to it later, if you have time.

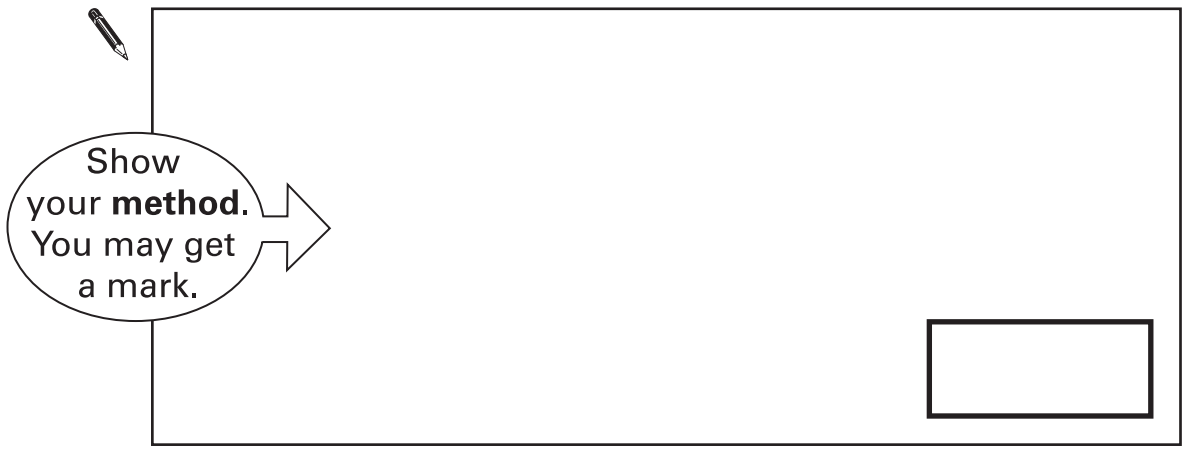
If you finish before the end, **go back and check your work**.

Follow the instructions for each question carefully.

This shows where you need to put the answer.

If you need to do working out, you can use any space on a page.

Some questions have an answer box like this:



For these questions you may get a mark for showing your method.

1 Write in the missing numbers.

37 × ☐ = 111

225 − ☐ = 150

☐ ÷ 4 = 21

1a 1 mark

1b 1 mark

1c 1 mark

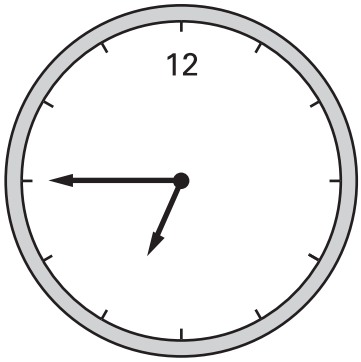
2 Here are five digit cards.

1	2	3	4	5

Use all five digit cards once to make this sum correct.

2 1 mark

3 Here is a clock.

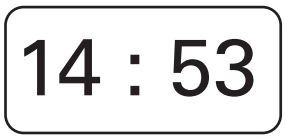


How many minutes is it **until** this clock shows 7:30?

minutes

3a
1 mark

Here is another clock.



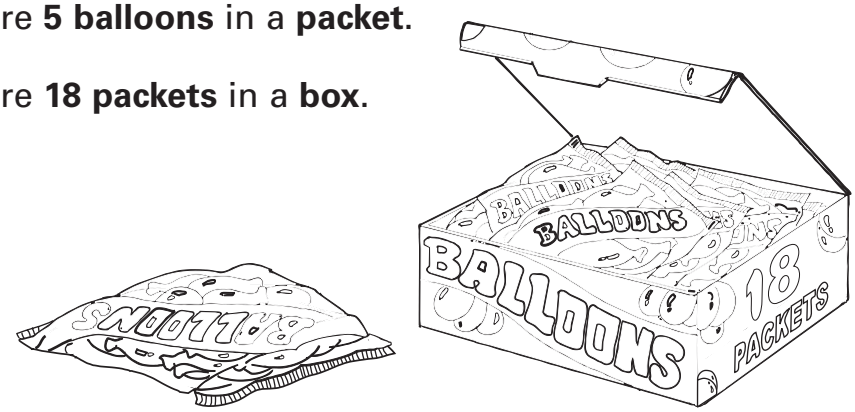
What time will the clock show in 20 minutes?

3b
1 mark

Total out of 6

4 There are **5 balloons** in a **packet**.

There are **18 packets** in a **box**.

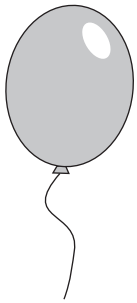


How many balloons are there altogether in a **box**?

4a
1 mark

There are 5 balloons in a packet.

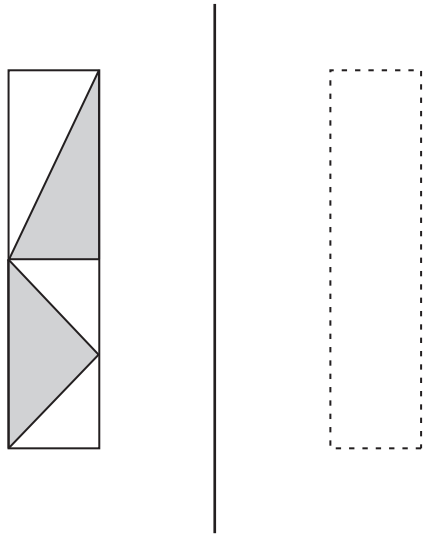
Kofi needs **65 balloons**.



How many **packets** does he need?

4b
1 mark

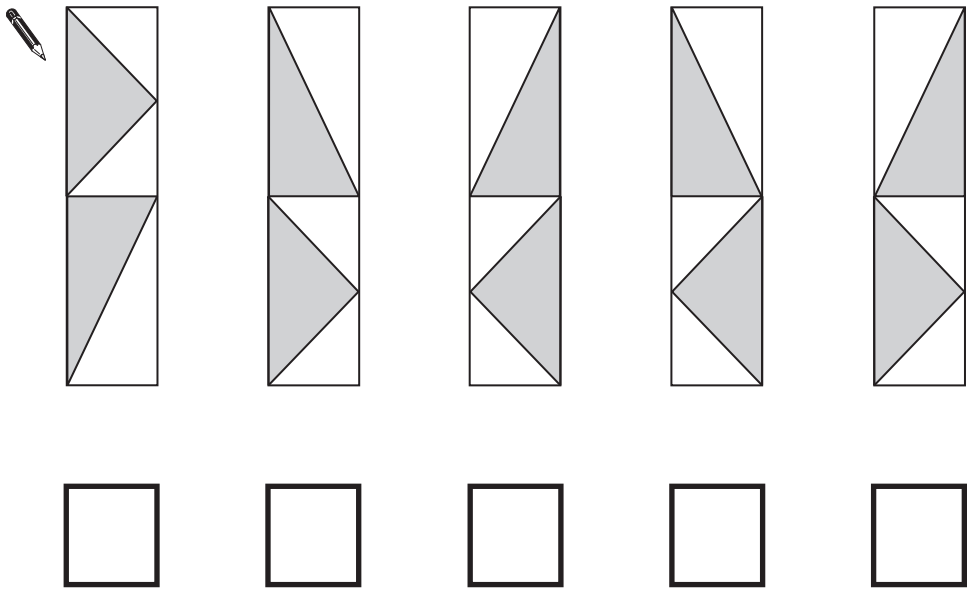
5 Here is a design and a mirror line.



mirror line

Which **one** of the designs below is the reflection of the design in the mirror line?

Tick (✓) the correct design.



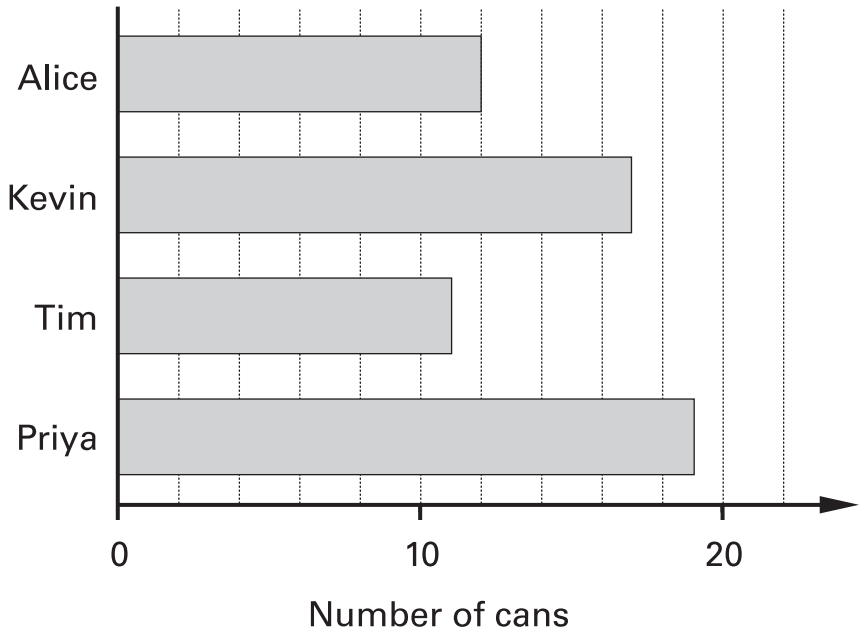
5

1 mark

Total out of 3

6 Some children collect cans for recycling.

Here is a chart of how many cans they collect in the first week.



How many cans has Kevin collected?

6a
1 mark

Alice's **target** is to collect **30** cans.

How many **more** cans does Alice need to reach her target?

6b
1 mark

7 Hayley makes a sequence of numbers.

Her rule is

'find half the last number then add 10'

Write in the next two numbers in her sequence.

36 28 24 ☐ ☐

7i

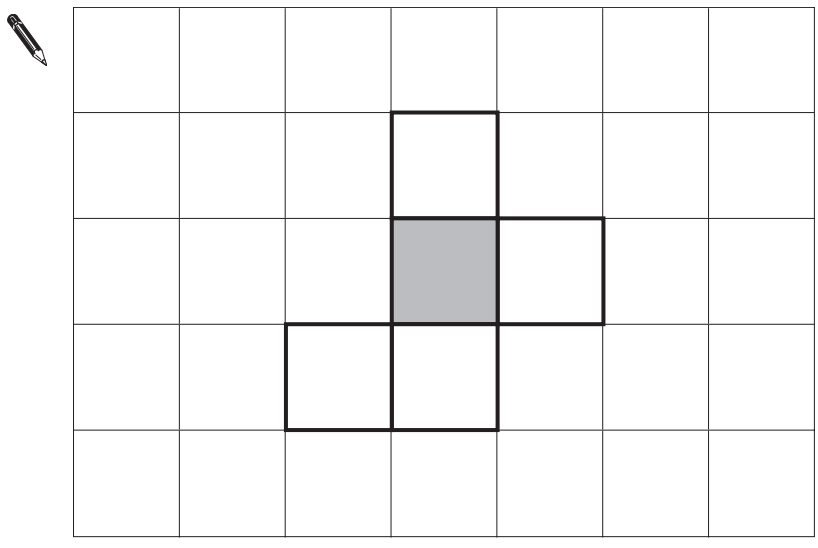
7ii

2 marks

8 Here is the net of a cube with no top.

The shaded square shows the bottom of the cube.

Draw an extra square to make the net of a cube which does have a top.



8

1 mark

Total out of 5

9 These are the prices in a fish and chip shop.

Fish		£1.95
Chips	small bag	55p
	large bag	70p
Peas		38p

Luke has **£3**

He wants to buy one fish, peas and two large bags of chips.

How much **more** money does he need?

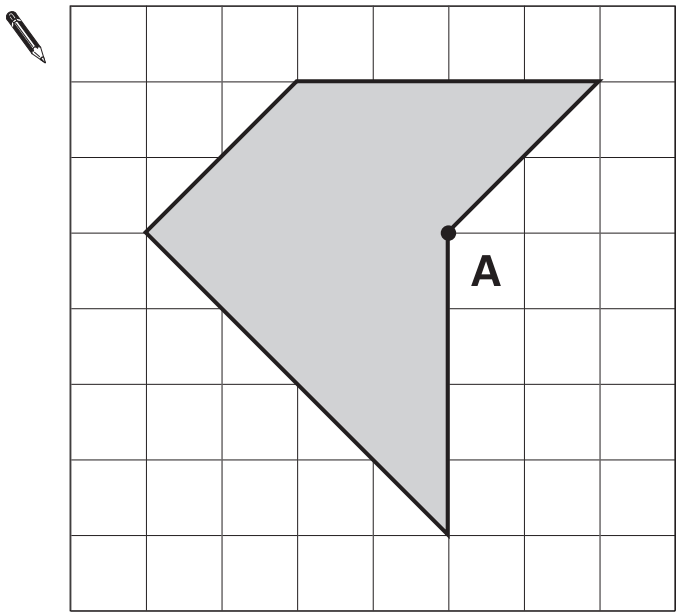
Show your **method**. You may get a mark.

9i

9ii

2 marks

10 Draw **two straight lines** from point **A** to divide the shaded shape into a square and two triangles.



10
1 mark

11

The temperature **inside** an aeroplane is **20°C**.

The temperature **outside** the aeroplane is **–30°C**.

What is the **difference** between these temperatures?

degrees

11
1 mark

Total out of 4

12 Karen makes a fraction using two number cards.

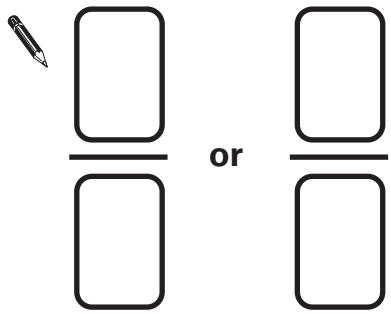
She says,

'My fraction is equivalent to $\frac{1}{2}$

One of the number cards is 6'

What could Karen's fraction be?

Give both possible answers.



12i

12ii

2 marks

13 Write what the **three** missing digits could be in this calculation.

13

1 mark

14 Here is a diagram for sorting numbers.

Write **one number** in each white section of the diagram.

	less than 1000	1000 or more
multiples of 20		
not multiples of 20		

14i

14ii

2 marks

15 Write these lengths in order, starting with the shortest.

$\frac{1}{2}$ m

3.5cm

25mm

20cm

shortest

15

1 mark

Total out of 6

16 In this sequence each number is double the previous number.

Write in the missing numbers.

☐ ☐ 3 6 12 24 48 ☐

16i 16ii

2 marks

17

Here are the **start** and **finish** times of some children doing a sponsored walk.

	Start time	Finish time
Claire	9:30	10:55
Ruth	9:35	11:05
Dan	9:40	11:08
Tim	9:45	11:05

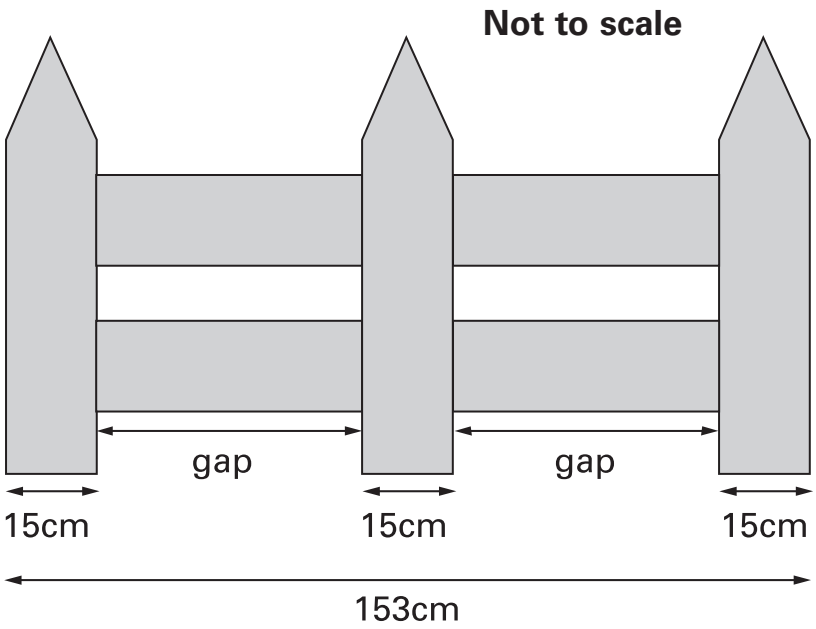
How much longer did Claire take than Tim?

☐ **minutes**

17

1 mark

18 This fence has three posts, equally spaced.



Each post is **15 centimetres** wide.

The length of the fence is **153 centimetres**.

Calculate the length of **one gap** between two posts.

Show your **method**. You may get a mark.

cm

18i

18ii

2 marks

Total out of 5

19 Calculate $\frac{3}{8}$ of **980**

19

1 mark

20 **k**, **m** and **n** each stand for a whole number.

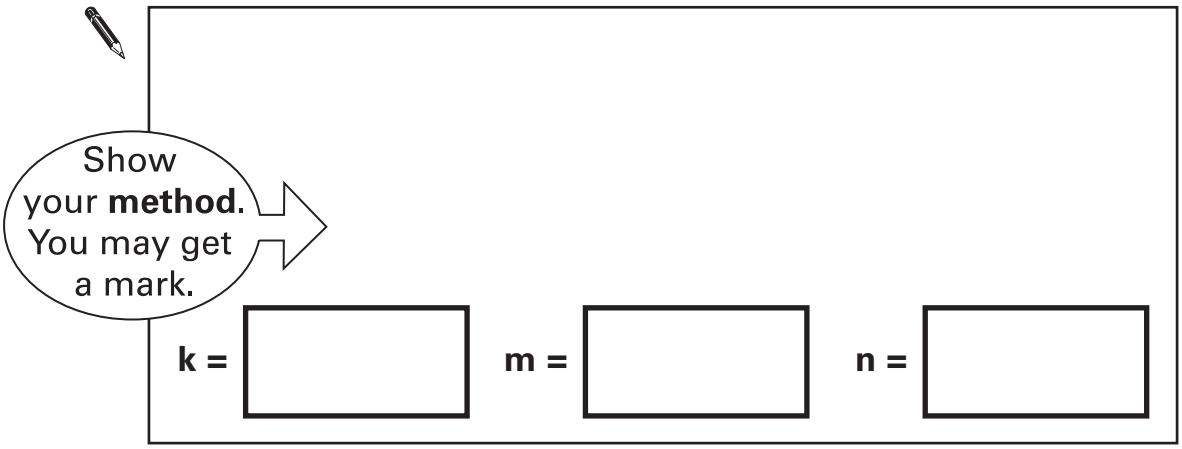
They add together to make 1500

$$k + m + n = 1500$$

m is **three times** as big as **n**.

k is **twice** as big as **n**.

Calculate the numbers **k**, **m** and **n**.



20i

20ii

2 marks

21

Cheddar cheese costs £7.50 for 1kg.

Marie buys 200 grams of cheddar cheese.

How much does she pay?

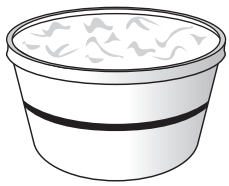
£

21a

1 mark

Cream cheese costs £3.60 for 1kg.

Robbie buys a pot of cream cheese for 90p.



How many grams of cream cheese does he buy?

Show your **method.** You may get a mark.

grams

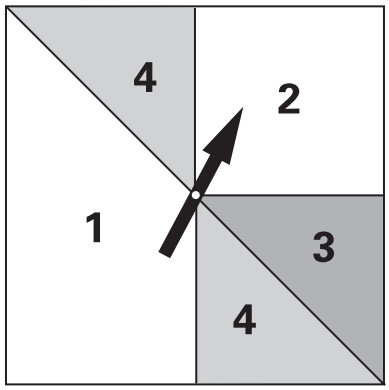
21bi

21bii

2 marks

Total out of 6

22 Here is a square spinner.



Look at these statements.

For each one put a tick (✓) if it is **correct**.
Put a cross (✗) if it is **not correct**.

‘4’ is the **most likely** score. ☐

‘2’ and ‘4’ are **equally likely** scores. ☐

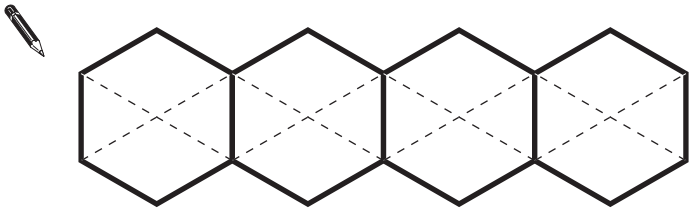
Odd and even scores are **equally likely**. ☐

A score of ‘3’ or more is **as likely as** a score of less than ‘3’. ☐

22i
22ii
2 marks

23 This diagram shows four regular hexagons.

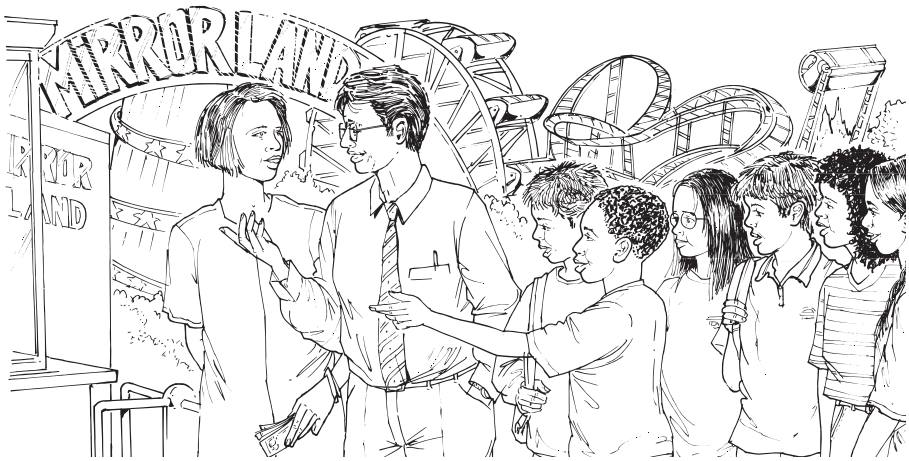
Shade in **one third** of the diagram.



23

1 mark

24



250 000 people visited a theme park in one year.

15% of the people visited in April and

40% of the people visited in August.

How many people visited the park in the rest of the year?

Show your **method**. You may get a mark.

24i

24ii

2 marks

Total out of 5

QCA key stage 2 team, 83 Piccadilly, London W1J 8QA

Order refs:
QCA/03/1014 (pupil pack)
QCA/03/1009 (mark schemes pack)