Mathematics

Paper B

2003
39 min
39 marks
Calculator Allowed

1.   Write in the missing numbers.

37   ×   ☐   =   111
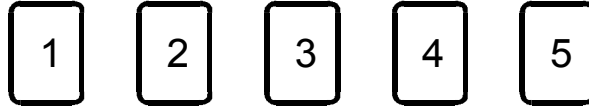
<div align="right">1 mark</div>

225   −   ☐   =   150

<div align="right">1 mark</div>

☐   ÷   4   =   21

<div align="right">1 mark</div>

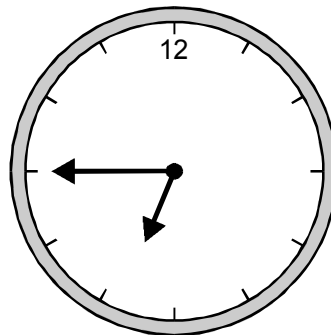**2.** Here are five digit cards.

| 1 | 2 | 3 | 4 | 5 |

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

$$\begin{array}{r} \square \\ \square\ \square \\ +\ \square\ \square \\ \hline 6\ \ 0 \end{array}$$

1 mark

3. Here is a clock.

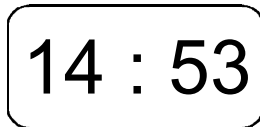

How many minutes is it **until** this clock shows 7:30?

minutes

1 mark

Here is another clock.
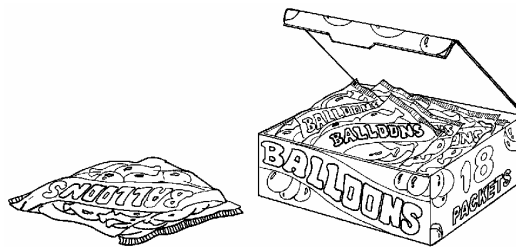
14 : 53

What time will the clock show in 20 minutes?

🖉

1 mark

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

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

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

🖉

1 mark

There are 5 balloons in a packet.

Kofi needs **65 balloons**.

How many **packets** does he need?

🖉

1 mark

5. Here is a design and a mirror line.
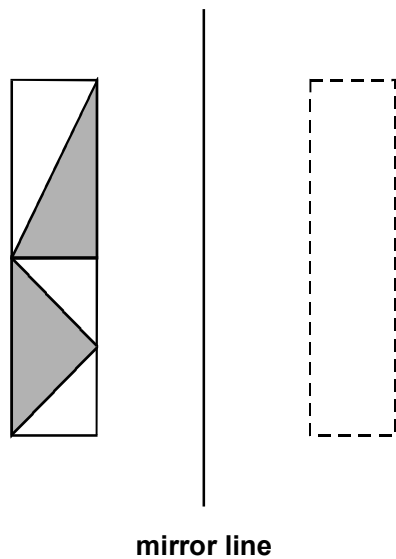
mirror line

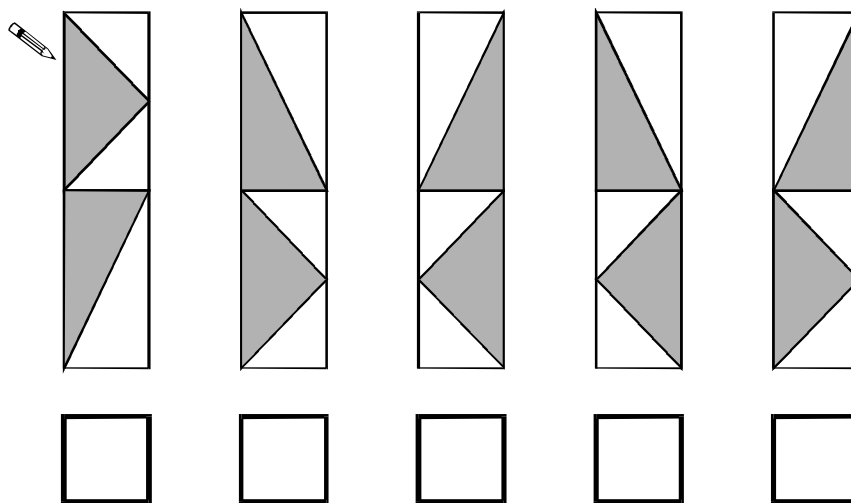Which **one** of the designs below is the reflection of the design in the mirror line?
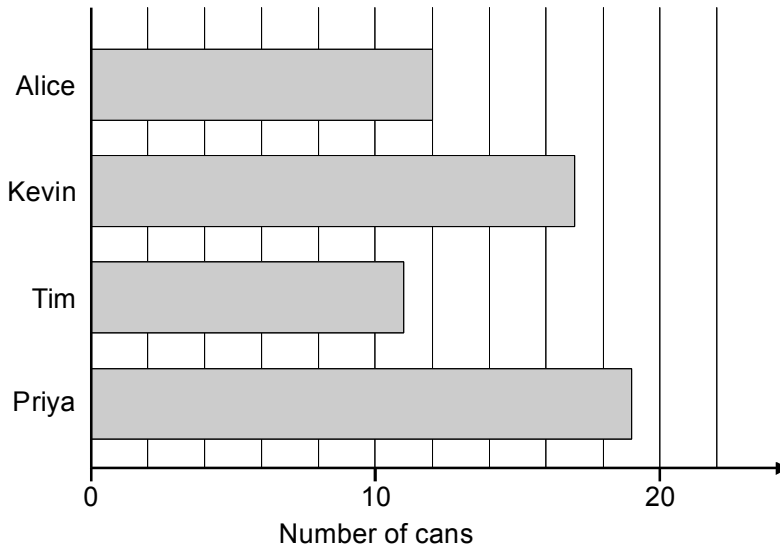
Tick (✔) the correct design.

1 mark

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?

✎ [ ]

1 mark

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

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

✎ [ ]

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.
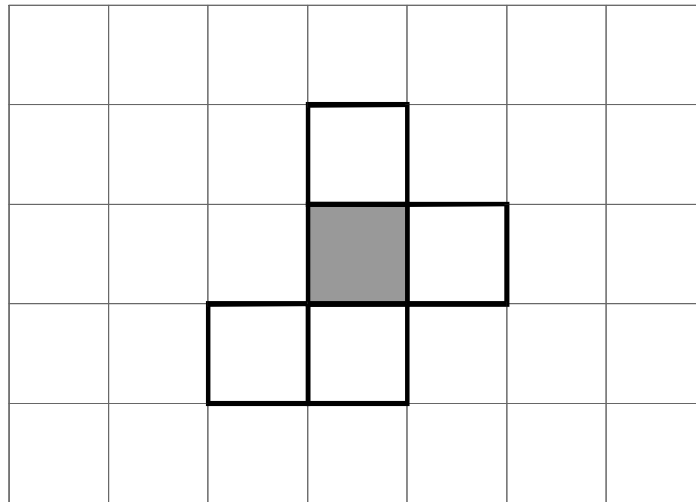
✎   36   28   24   [ ]   [ ]

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.

1 mark

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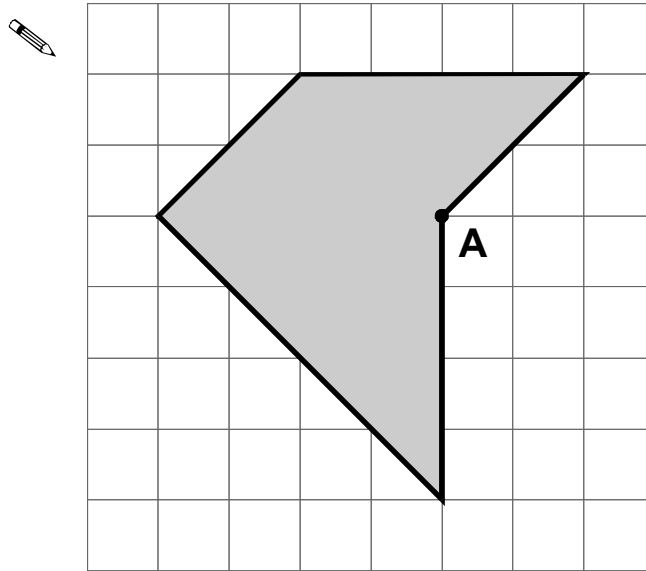
How much **more** money does he need?

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

2 marks

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

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

1 mark

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.

$$\frac{\boxed{}}{\boxed{}} \text{ or } \frac{\boxed{}}{\boxed{}}$$

2 marks

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

$$\boxed{} \times \boxed{} = \boxed{3\,|\,7\,|\,8}$$

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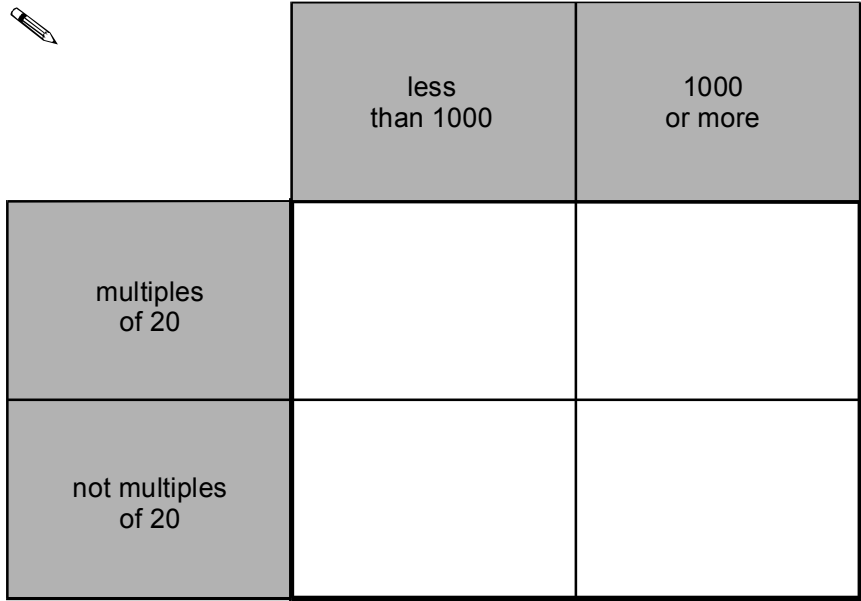
15. Write these lengths in order, starting with the shortest.

$\frac{1}{2}$ m

3.5cm

25mm

20cm

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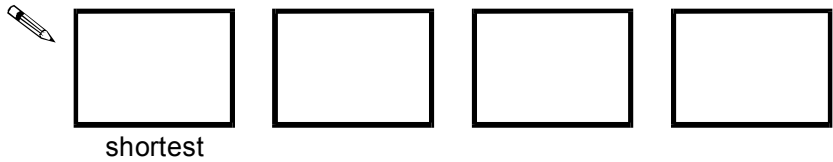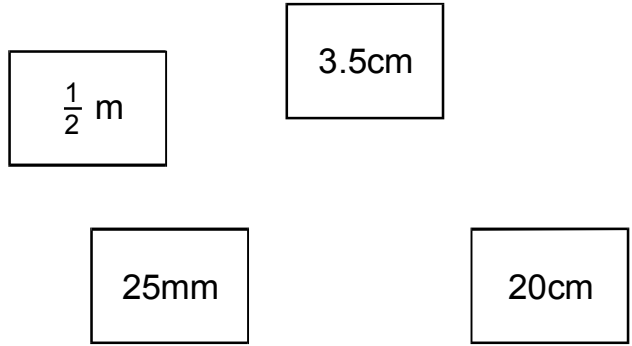
16. In this sequence each number is double the previous number.

Write in the missing numbers.

✎ ▢ ▢   3   6   12   24   48   ▢

<div align="right">2 marks</div>

17.

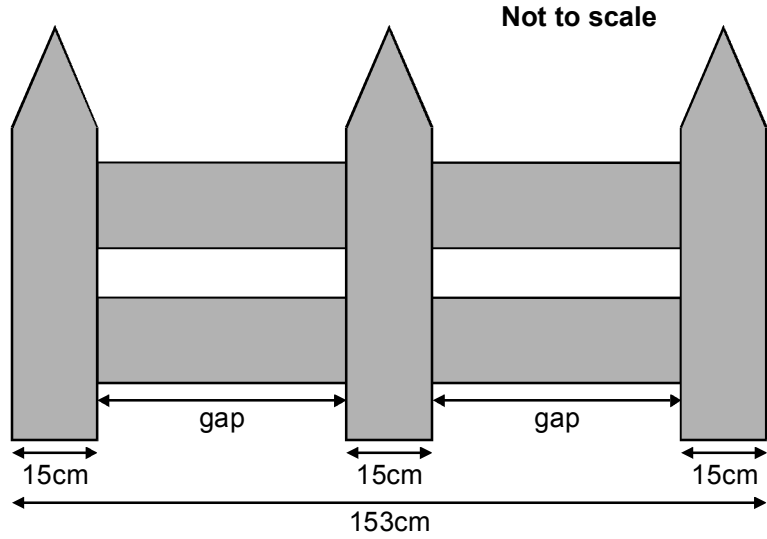Here are the **start** and **finish** times of some children doing a sponsored walk.

	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**

<div align="right">1 mark</div>

18. This fence has three posts, equally spaced.

Not to scale

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 |

2 marks

**19.** **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**.

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

k = _____   **m =** _____   **n =** _____

2 marks

20.

Cheddar cheese costs £7.50 for 1kg.
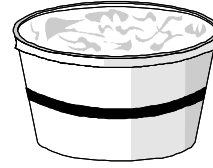
Marie buys 200 grams of cheddar cheese.

How much does she pay?

£ _____

1 mark

Cream cheese costs £3.60 for 1kg.

Robbie buys a pot of cream cheese for 90p.

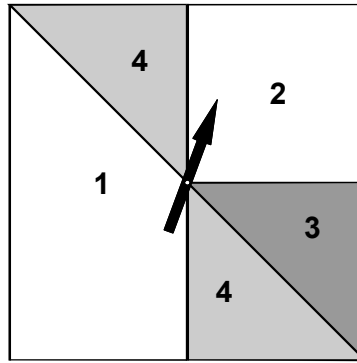How many grams of cream cheese does he buy?

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

grams

2 marks

21. 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.

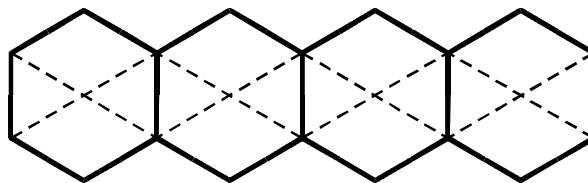‘2‘ and ‘4‘ are **equally likely** scores.

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

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

2 marks

22. This diagram shows four regular hexagons.

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

1 mark

23.

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.

2 marks