

Year 3 – End of Spring Term

(On track to meet end of year expectations)

Mathematics

Paper 2: reasoning

First name	
Middle name	
Last name	

Total marks



Instructions

You **may not** use a calculator to answer any questions in this test.

Questions and answers

You have approximately **40 minutes** to complete this test.

Follow the instructions for each question.

Work as quickly and as carefully as you can.

If you need to do any working out, you can use the space around the question.

Some question have a method box like this:

The diagram illustrates a 'method box' for showing working out. It consists of a rounded rectangle on the left containing the text 'Show your method'. To its right is a large grid of 20 columns and 10 rows, formed by red lines. In the bottom right corner of this grid, there is a smaller, empty rectangular box with a blue border, representing a designated area for the final answer.

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

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**.

Marks

The number under each line at the side of the page tells you the maximum number of marks available for each question.

1Round the following numbers to the **nearest 10**

372

to the nearest 10

635

to the nearest 10

197

to the nearest 10

2 marks

2

Lin has placed a counter on square B2 on the grid below.

8								
7								
6								
5								
4								
3								
2		●						
1								
	A	B	C	D	E	F	G	H

She moves the counter 4 squares right and 2 squares up.

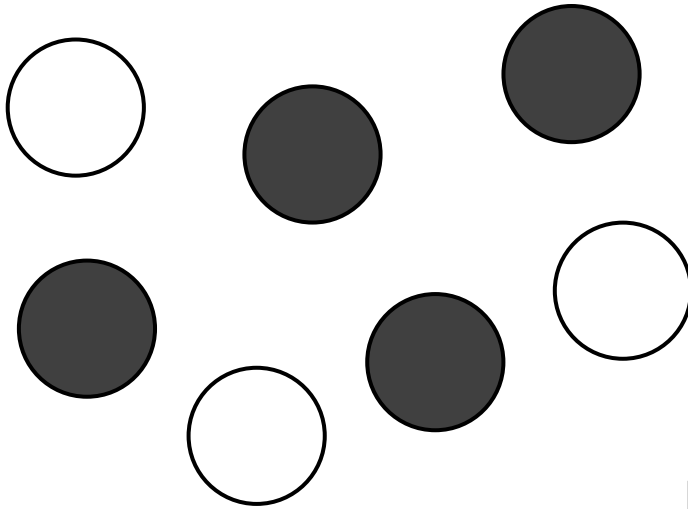
Write the position of the square she moves it to.

1 mark

3

Here are some counters.

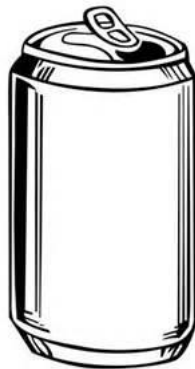
What fraction of the counters are white?



1 mark

4

Ben bought a can of lemonade.



Circle the **capacity** of the can of lemonade.

3ml

30ml

330ml

3300ml



1 mark

Write the missing number.


576 $\xrightarrow{\text{is 300 more than}}$ 276

482



A shop keeper has 48 balloons. She puts them into **bags of 3**.

How many bags of balloons can she make?



bags

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7

Here are three masses.

1kg

500g

700g

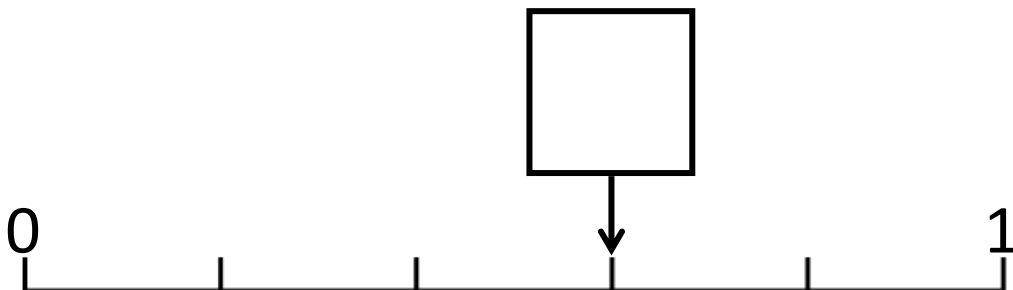
Write the masses in order, starting with the **lightest**.

1 mark

8

Here is part of a number line.

Write in the missing **fraction**.



1 mark

9

Look at the table.

Food	Mass
apple	167g
potato	342g
onion	158g
banana	145g
orange	183g

How much heavier is the **potato** than the **onion**?

1 mark

What is the total mass of the **apple** and the **orange**?

1 mark

10

The numbers in this sequence decrease by the same amount each time.

Write the two missing numbers.

400

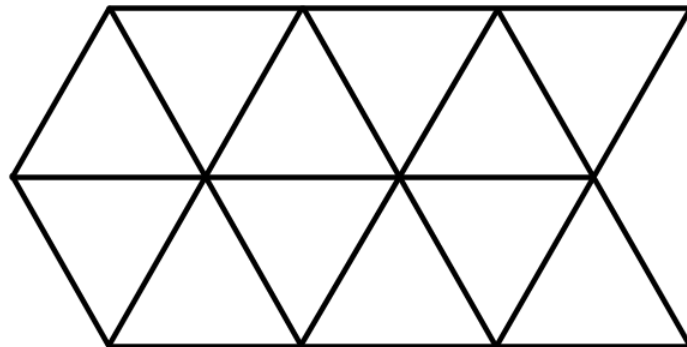
350

300

1 mark

11

Shade $\frac{1}{4}$ of this shape.



1 mark

12

Write the missing number.

$$80 \div \boxed{} = 20$$

1 mark

13

Ben, Lin and Sara each have a pair of scissors.

Each pair of scissors has a mass of 48g.

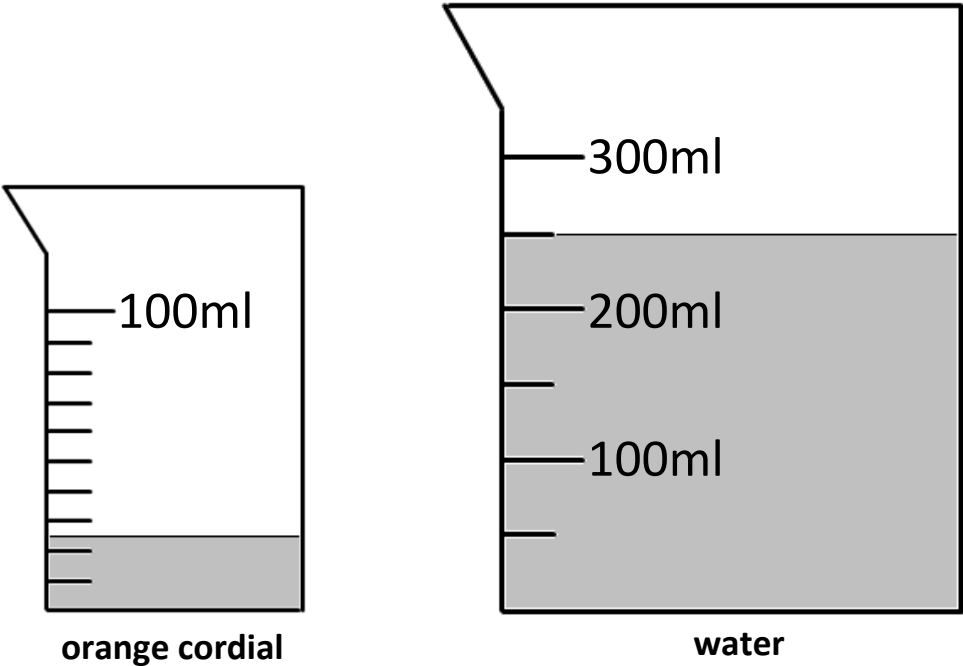
What is the mass of their scissors **altogether**?

gg

1 mark

14

Lin measured some orange cordial and some water.



Lin added the orange cordial to the water to make a drink.

What was the **total volume** of the drink?

Show your method

ml

ml

2 marks

15

Write these fractions in the boxes on the number line.

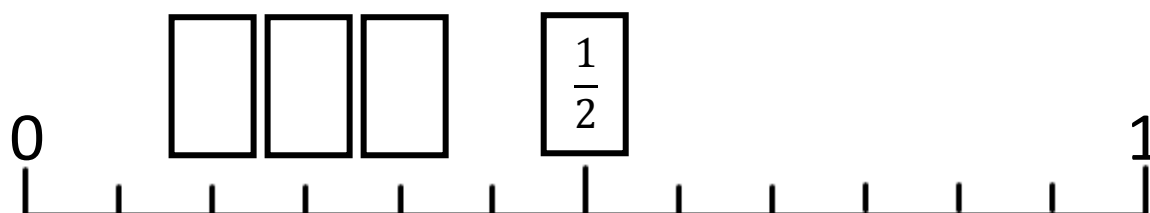
$\frac{1}{3}$

$\frac{1}{6}$

$\frac{1}{2}$

$\frac{1}{4}$

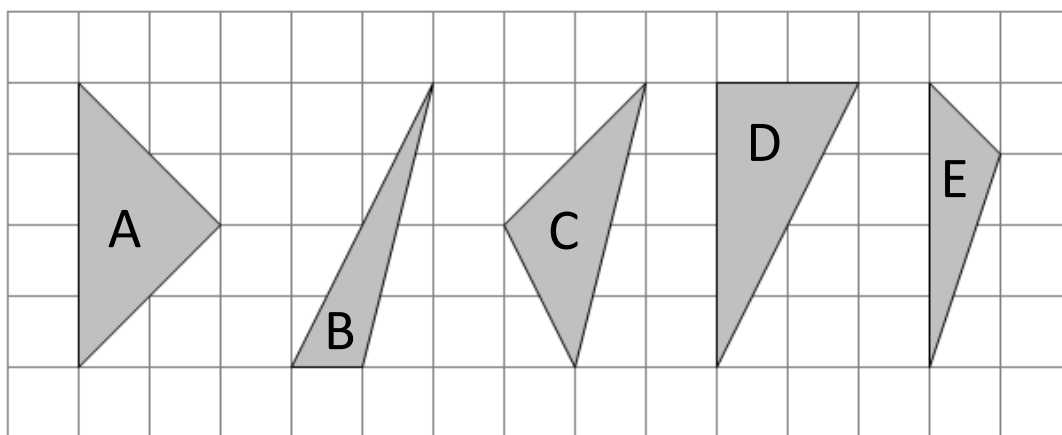
One has been done for you.



1 mark

16

Here are five shaded triangles on a square grid.

Write the letter of **every** triangle that has a right angle.



1 mark

17

Here is a sorting diagram for numbers.

Write the following numbers in the correct parts of the sorting diagram.

One has been done for you.

16

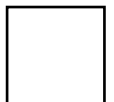
12

27

~~15~~

22

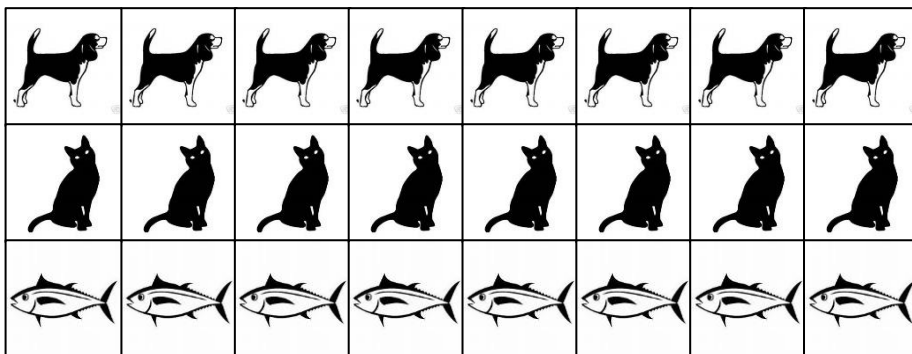
	Multiple of 3	Not a multiple of 3
Multiple of 4		
Not a multiple of 4	15	



2 marks

18

Ben has this sticker sheet.



Her gives $\frac{3}{8}$ of the stickers to Sara.

How many stickers does he give to Sara?

stickers



1 mark

19

Ben's birthday is on 5th April.

If today's date is 28th March, **how many days** is it until Ben's birthday?

days













1 mark

20

A shop sells cakes.

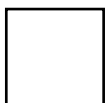
This pictogram shows how many cakes were sold in a week.

 = 8 cakes

chocolate brownie							
blueberry muffin							
vanilla slice							
carrot cake							

How many chocolate brownies and blueberry muffins were sold **altogether**?

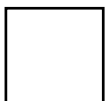
cakes



1 mark

The shop sells 40 carrot cakes in a week.

Add this information to the pictogram.



1 mark

21

Here are three clock faces.

Match each clock face to the same time on a digital clock.

One has been done for you.

**2:45****5:40****2:35****9:10****8:30**

1 mark

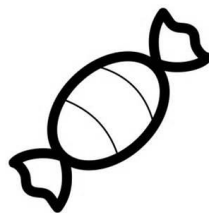
22

Ben goes to the sweet shop.

Lollipops cost 4p and strawberry chews cost 3p.



4p



3p

Ben spends 23p on sweets.

How many lollipops and strawberry chews could Ben have bought for 23p?

lollipops and

strawberry chews

1 mark

Match the calculations that have the same total.

$$100 + 40 + 5$$

$$100 + 140 + 5$$

$$200 + 40 + 5$$

$$200 + 220 + 25$$

$$300 + 40 + 5$$

$$100 + 30 + 15$$

$$400 + 40 + 5$$

$$200 + 110 + 35$$



2 marks

24

Sara used this fraction strip to **add** fractions.



Which **fraction addition** could the fraction strip show?

$$\frac{\square}{\square} + \frac{\square}{\square} = \frac{\boxed{5}}{\boxed{7}}$$

1 mark

25

These are the start and finish times of a television programme.

Start 10:47am

Finish 11:22am

How long does the television programme last?

minutes

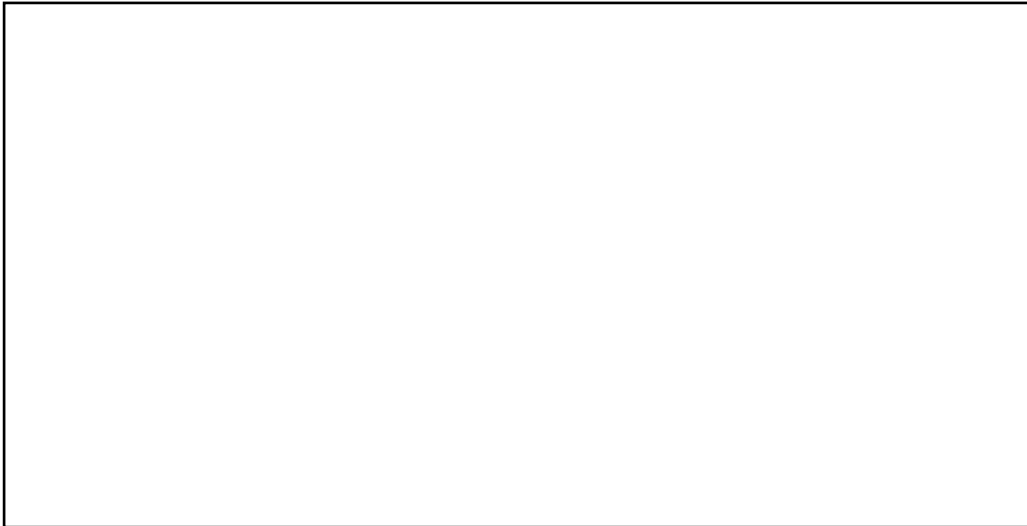
1 mark

26

Sara makes a sequence of numbers starting with 10.
She adds 50 each time.

Sara says, “420 will be in my sequence.”

Explain why Sara is **not** correct

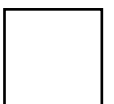


1 mark

27

Identify the missing number in the following calculation.

$$\frac{1}{5} \text{ of } \square = 4$$



1 mark

END OF TEST