

Monday 22nd June Y4 Maths

In Maths today I would like you to complete this Reasoning paper.

Try to answer as many questions as you can by yourself. (You can ask an adult to read the question for you as long as they don't read the numbers or maths symbols like +, -, x, ÷, =, > or <).

Miss out any questions that you find difficult and come back to them at the end.

Remember, you must read the question carefully and make sure that you understand what it is asking before you start.

There are 23 questions and you can take as long as you like but I would like to know how many you could answer in the first 40 minutes. If you finish early, don't forget to go back and check that you have answered them all.

It would also be really useful to know which ones you found hard. (The answers are at the end – no peeping!!!)



Emma

Jack

Malik

These three characters appear in the questions.

Question

1

Fill in the **three** missing numbers to complete the **sequence**.

30		50			80	90
----	--	----	--	--	----	----

☐

1 mark

Question

2

Look at the numbers in the table below.
Some are **odd** and some are **even**.

Draw a circle around the **two numbers that are in the wrong place**.

Odd numbers		Even numbers	
43	36	40	25
	15		36
13	9	52	14

☐

1 mark

Question

3

Jack put 5 pencils in **each** pencil pot.



How many **pencils** are there **altogether**?



pencils

☐

1 mark

Question

4

Look at the number sentences below.

For **each sentence**, put a tick (✓) if it is correct. Put a cross (x) if it is incorrect.

$$10 + 8 = 8 + 10$$

☐

$$10 - 8 = 8 - 10$$

☐

$$16 \div 2 = 2 \div 16$$

☐

$$2 \times 8 = 8 \times 2$$

☐
☐

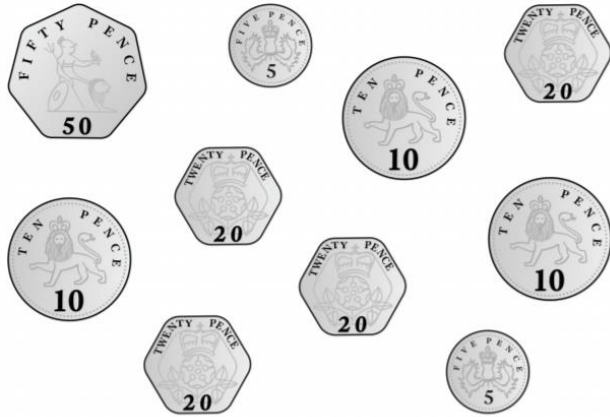
1 mark

Question

5

Emma and Malik share these coins between them so they both get the same amount of money.

Draw around the coins that Malik could have.



1 mark

Question

6

Write these numbers in order from largest to smallest.

889 898 989 998 988

--	--	--	--	--

Largest

Smallest



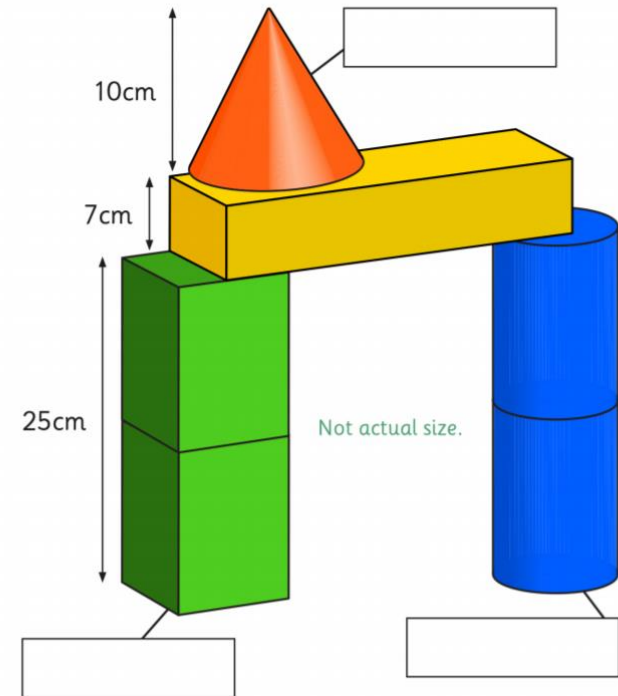
1 mark

Question

7

Jack has built a tower using some 3-D shapes.

Name **each** shape in the space provided.



2 marks

Look at the **measurements** on the tower.

How **tall** is Jack's tower in **total**?

	cm
--	----



1 mark

Question

8

Here are four digit cards.

7

6

9

5

Use **all four** cards to make these number sentences correct.

$$5 \times \square = 45$$

$$\square \times 3 = 21$$

$$35 \div \square = 7$$

$$30 \div \square = 5$$

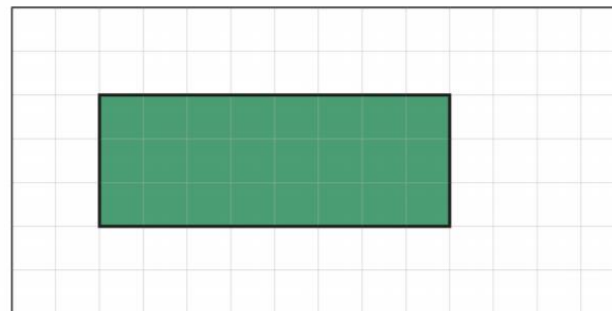


2 marks

Question

9

Here is a rectangle on a **centimetre square grid**.



What is the **perimeter** of the rectangle?

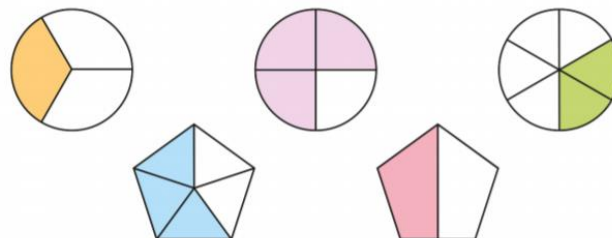
 cm


1 mark

Question

10

Put a tick next to **all** of the shapes that have $\frac{1}{3}$ shaded.



1 mark

11

He buys a shirt for £16 and a pair of shorts for £19.



How much money will Malik have left?

£

2 marks

12

Circle the number that is closest to 1000.

995

1009

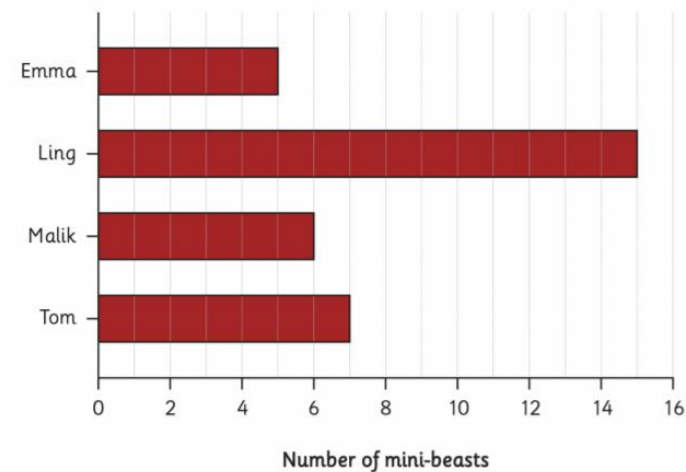
996

1003

990

13

The **bar chart** below shows how many mini-beasts the children collected on their mini-beast hunt.



How many mini-beasts did Emma collect?

mini-beasts

1 mark

How many **more** mini-beasts did Ling collect than Tom?



mini-beasts

1 mark

Question

14

Write the missing numbers in the boxes.

$$4678 - 1000 = \boxed{}$$

$$3458 = 1000 + \boxed{}$$



2 marks

Question

15

Complete the multiplication table.

×	3	8	2
	12	32	
6		48	12
7	21		14



2 marks

Question

16

Draw a line to match **each** number to the nearest **thousand**.

One has been done for you.

2561

4248

4580

4000

1000

2000

3000

5000

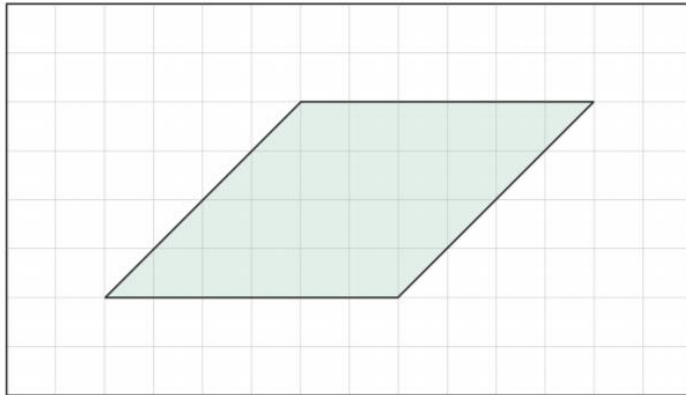


1 mark

Question

17

Look at the shape on the grid below.



Circle true or false for **each** statement.

This shape has **no right angles**.

True/false

This shape is a **quadrilateral**.

True/false

This shape has **two pairs of parallel sides**.

True/false

This shape is a **kite**.

True/false



2 marks

Question

18

Write **each** 12-hour time as a 24-hour time.

One has been done for you.

12-hour clock time	24-hour clock time
1:25pm	
4:30pm	16:30
9:15pm	
	03:40




2 marks

19

727 of the children are girls.
The rest are boys.



How many **boys** are in the school?



boys

1 mark


20

Malik buys 2 bananas.
The bananas cost the same price.



He pays with a £5 note and gets £3.60 change.

What is the cost of 1 banana?



21

Here is a table showing the **temperatures** in different cities at the start of the week.

	Monday	Tuesday	Wednesday
London	8°C	5°C	3°C
Cardiff	2°C	3°C	6°C
Edinburgh	0°C	-2°C	-7°C
Belfast	1°C	-3°C	-5°C

Which **city** had the **lowest** temperature?

1 mark

How much **warmer** was it in London than Belfast on Tuesday?

°C

1 mark

Question

22

Write the missing **numbers** in the boxes.

$$34 \div \boxed{} = 5 \text{ remainder } 4$$

$$47 \div \boxed{} = 4 \text{ remainder } 3$$

☐

2 marks

Question

23

Here are four **lengths**.

20mm

15cm

$\frac{1}{2}$ m

1.5cm

Write them in **order** from shortest to longest.

Shortest

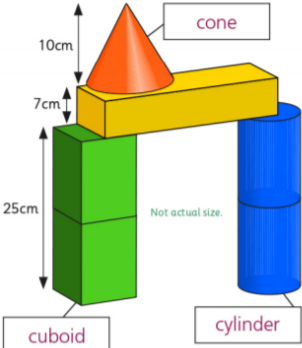
Longest

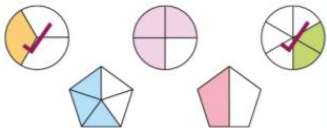
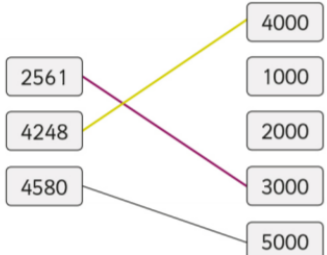
☐

1 mark

Answers

1	Numbers provided as shown: <table><tr><td>30</td><td>40</td><td>50</td><td>60</td><td>70</td><td>80</td><td>90</td></tr></table>	30	40	50	60	70	80	90	All three numbers must be provided, in the correct boxes, for one mark to be awarded.	1									
30	40	50	60	70	80	90													
2	Numbers circled as shown: <table><tr><th colspan="2">Odd numbers</th><th colspan="2">Even numbers</th></tr><tr><td>43</td><td>36</td><td>40</td><td>25</td></tr><tr><td>15</td><td></td><td>36</td><td></td></tr><tr><td>13</td><td>9</td><td>52</td><td>14</td></tr></table>	Odd numbers		Even numbers		43	36	40	25	15		36		13	9	52	14	Both numbers must be circled for one mark to be awarded. You may accept any other clear way that the child has indicated the correct numbers (e.g. a tick, a cross). Do not award the mark if extra numbers have been indicated that are incorrect, unless it is clear that the correct ones are the child's final choice.	1
Odd numbers		Even numbers																	
43	36	40	25																
15		36																	
13	9	52	14																
3	25 pencils	Award one mark for the correct answer.	1																
4	Number sentences ticked and crossed as shown: $10 + 8 = 8 + 10$ <input checked="" type="checkbox"/> $10 - 8 = 8 - 10$ <input type="checkbox"/> $16 \div 2 = 2 \div 16$ <input type="checkbox"/> $2 \times 8 = 8 \times 2$ <input checked="" type="checkbox"/>	All four answers must be correct for one mark to be awarded.	1																
5	Any of the following combination of coins: <ul style="list-style-type: none">50p, 20p, 10p, 5p50p, 10p, 10p, 10p, 5p20p, 20p, 20p, 20p, 5p20p, 20p, 20p, 10p, 10p, 5p	Award one mark for any combination of coins that have been circled to make 85p. You may accept any other clear way that the child has indicated the correct answer of 85p (e.g. a tick, a cross). Do not award the mark if extra coins have been indicated that are incorrect, unless it is clear that the correct ones are the child's final choice.	1																

6	<p>Numbers ordered as shown:</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 5px; margin: 2px;">998</div> <div style="border: 1px solid black; padding: 5px; margin: 2px;">989</div> <div style="border: 1px solid black; padding: 5px; margin: 2px;">988</div> <div style="border: 1px solid black; padding: 5px; margin: 2px;">898</div> <div style="border: 1px solid black; padding: 5px; margin: 2px;">889</div> </div> <p>Largest Smallest</p>	<p>Award one mark for the correct order.</p> <p>If the child has got muddled and accidentally written the numbers from largest to smallest and changed the labels under the first and last box, to match their order, one mark may be awarded.</p>	1
7	<p>Names provided as shown:</p> 	<p>All three shape names must be provided, in the correct boxes, for two marks to be awarded.</p> <p>You may accept any reasonable or phonetic attempt at the spellings.</p> <p>You may award one mark for two correct shape names provided.</p>	2
	42cm	Award one mark for the correct answer.	1
8	<p>Numbers provided as shown:</p> $5 \times \boxed{9} = 45$ $\boxed{7} \times 3 = 21$ $35 \div \boxed{5} = 7$ $30 \div \boxed{6} = 5$	<p>All four numbers must be provided, in the correct boxes, for two marks to be awarded.</p> <p>You may award one mark for two or three correct answers.</p>	2
9	22cm	Award one mark for the correct answer.	1

10	Shapes ticked as shown: 	Both shapes must be ticked for one mark to be awarded. You may accept any other clear way that the child has indicated the correct shapes (e.g. a cross, shapes circled). Do not award the mark if extra shapes have been indicated that are incorrect, unless it is clear that the correct ones are the child's final choice.	1																
11	£15	Award two marks for any unambiguous indication of the correct answer (e.g. £15.00, £15.00p, £15.00, £15-00, £15:00, £15 00, with a clear space between 15 and 00). If the child's answer is incorrect, you may award one mark for evidence of appropriate working out.	2																
12	Number circled as shown: 995 996 1003 1009 990	Award one mark for the correct answer. You may accept any other clear way that the child has indicated the correct number (e.g. a tick, a cross).	1																
13	5 mini-beasts	Award one mark for the correct answer.	1																
	8 mini-beasts	Award one mark for the correct answer.	1																
14	Numbers provided as shown: $4678 - 1000 =$ 3678 $3458 = 1000 +$ 2458	Both numbers must be provided, in the correct boxes, for two marks to be awarded. Award one mark for each correct answer.	2																
15	Table completed as shown: <table border="1"><tr><th>x</th><th>3</th><th>8</th><th>2</th></tr><tr><td>4</td><td>12</td><td>32</td><td>8</td></tr><tr><td>6</td><td>18</td><td>48</td><td>12</td></tr><tr><td>7</td><td>21</td><td>56</td><td>14</td></tr></table>	x	3	8	2	4	12	32	8	6	18	48	12	7	21	56	14	All four numbers must be provided, in the correct boxes, for two marks to be awarded. You may award one mark for two or three correct answers.	2
x	3	8	2																
4	12	32	8																
6	18	48	12																
7	21	56	14																
16	Cards matched as shown: 	Both numbers must be matched correctly to their nearest thousand for one mark to be awarded.	1																

17	<p>Answers circled as shown:</p> <p>This shape has no right angles. True/false</p> <p>This shape is a quadrilateral. True/false</p> <p>This shape has two pairs of parallel sides. True/false</p> <p>This shape is a kite. True/false</p>	<p>All of the correct answers must be circled for two marks to be awarded.</p> <p>You may award one mark for two or three correct answers.</p>	2										
18	<p>Table completed as shown:</p> <table><tr><th>12-hour clock time</th><th>24-hour clock time</th></tr><tr><td>1:25pm</td><td>13:25</td></tr><tr><td>4:30pm</td><td>16:30</td></tr><tr><td>9:15pm</td><td>21:15</td></tr><tr><td>3:40am</td><td>03:40</td></tr></table>	12-hour clock time	24-hour clock time	1:25pm	13:25	4:30pm	16:30	9:15pm	21:15	3:40am	03:40	<p>All three digital times must be provided, in the correct boxes, for two marks to be awarded.</p> <p>You may award one mark for two correct answers.</p>	2
12-hour clock time	24-hour clock time												
1:25pm	13:25												
4:30pm	16:30												
9:15pm	21:15												
3:40am	03:40												
19	699	Award one mark for the correct answer.	1										
20	70p	<p>Award two marks for any unambiguous indication of the correct answer (e.g. seventy p, seventy pence, £0.70, £00.70).</p> <p>If the child's answer is incorrect, you may award one mark for evidence of appropriate working out.</p>	2										

	Answer	Marking guidance	Mark
21	Edinburgh	Award one mark for the correct answer.	1
	8°C	Award one mark for the correct answer.	1
22	Numbers provided as shown: $34 \div$ 6 = 5 remainder 4 $47 \div$ 11 = 4 remainder 3	Both numbers must be provided, in the correct boxes, for two marks to be awarded. Award one mark for each correct answer.	2
23	Lengths ordered as shown: 1.5cm 20mm 15cm ½m Shortest Longest	Award one mark for all four lengths ordered correctly. You may award one mark for the correct order of any lengths that have been converted to equivalent units (e.g. 1.5cm, 2cm, 15cm, 50cm).	1

