

2023 national curriculum tests

# Key stage 1

## Mathematics

### Paper 2: reasoning

First name	
Middle name	
Last name	

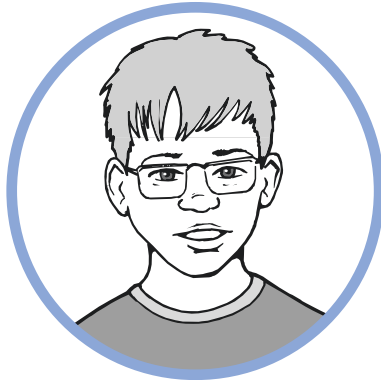
Total marks	
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**Ajay**



**Amy**



**Ben**



**Kemi**



**Sam**



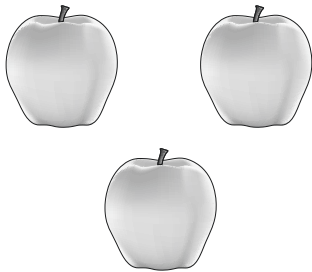
**Sita**

# Practice question

**Sita**

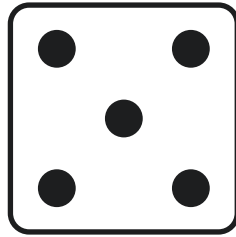


**Amy**



apples

1



5

3

2

7



1 mark

2

6

2

8

3

--	--



1 mark

3



1 mark

4



oranges



1 mark

5

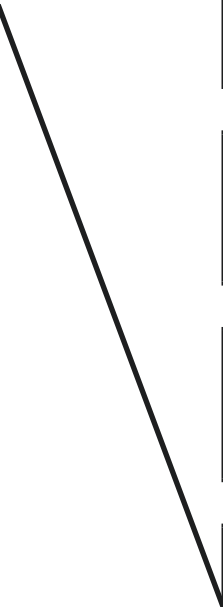


1 mark

6 Match the words to the correct numerals.

One is done for you.

ninety-nine	16
sixteen	60
forty-three	43
	99
	34



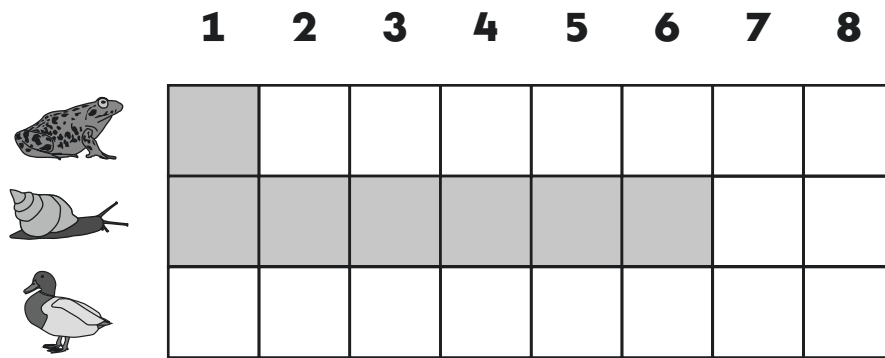
1 mark



**7** This block diagram shows how many animals are in a pond.

There are **4 ducks** in the pond. 

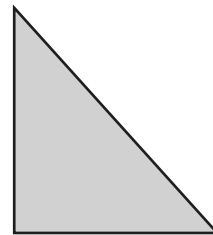
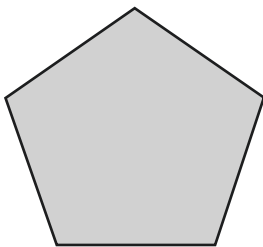
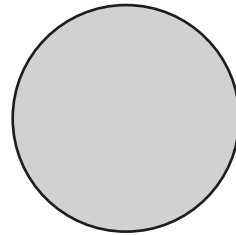
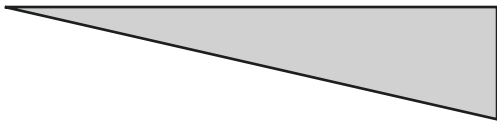
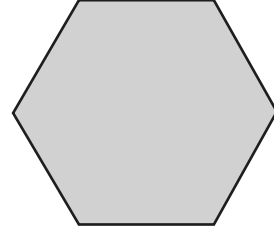
Complete the block chart.



1 mark

8

Tick the **two** shapes with the same number of sides.








1 mark

9

Each object looks like a **cuboid**, **cone** or **cylinder**.

Complete the table.

One is done for you.

Object	Cuboid	Cone	Cylinder
			✓
			
			
			
			



1 mark

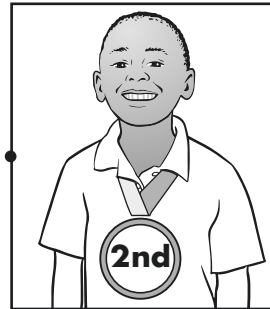
**10** Four children run a race.

The medals show their finishing position.

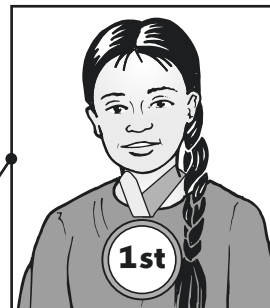
Match each time to the child's position.

One is done for you.

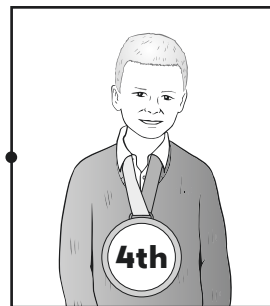
11 minutes



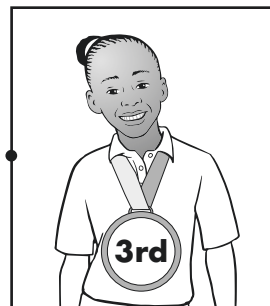
15 minutes



13 minutes

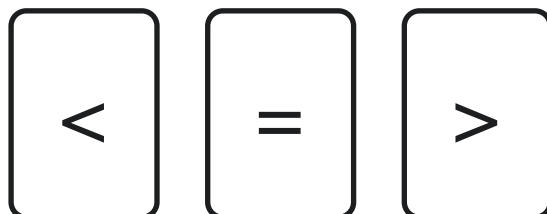


10 minutes



1 mark

11 Look at these signs.



Write the correct sign in each box.

$$21 \quad \boxed{\phantom{<}} \quad 12$$

$$48 \quad \boxed{\phantom{<}} \quad 64$$

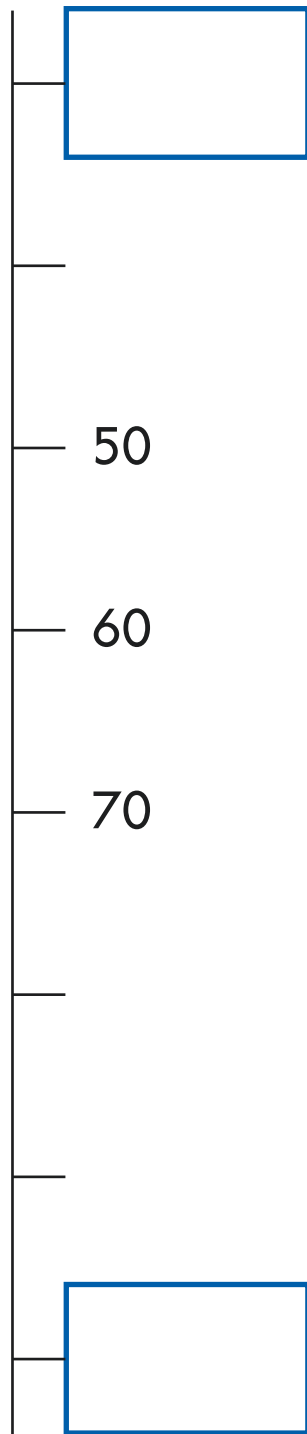
$$55 \quad \boxed{\phantom{<}} \quad 55$$



1 mark

**12**

Write the correct number in each box on the number line.

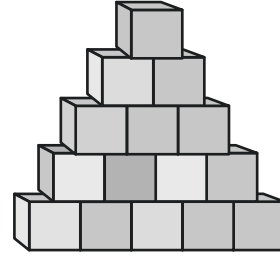


1 mark

13

Ben wants to build a tower with **15** blocks.

He only has **9** blocks.



How many **more** blocks does Ben need?

blocks



1 mark

14

Match **all** the pairs of numbers that add to **20**

One is done for you.

5	13
7	11
4	15
9	16




A line connects the number 5 in the first row to the number 15 in the third row.



1 mark

15 Ben draws a tally chart of the birds he sees in his garden.

Complete Ben's tally chart.

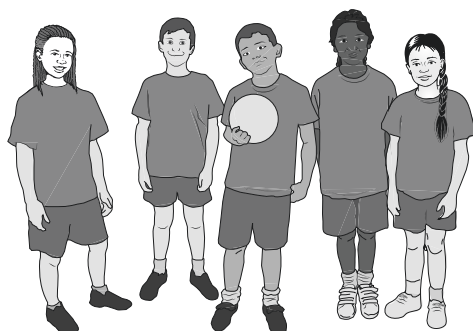
Bird	Tally of birds	Number of birds
robin 		3
blue tit 		
sparrow 		10



1 mark

16 6 teams play football.

Each team has 5 children.



How many children play football **altogether**?

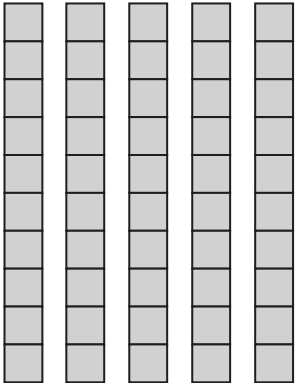
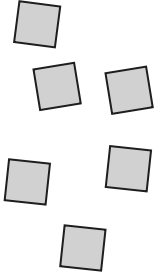
children



1 mark



17

tens	ones
	

Kemi uses tens and ones to show **56**

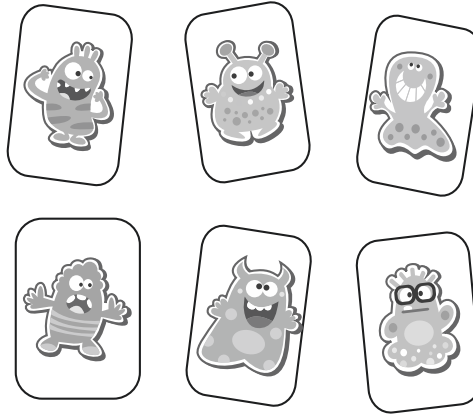
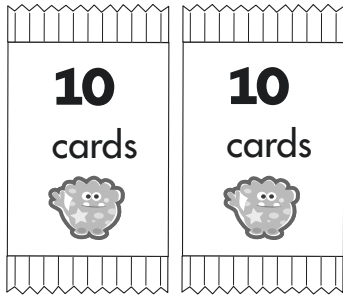
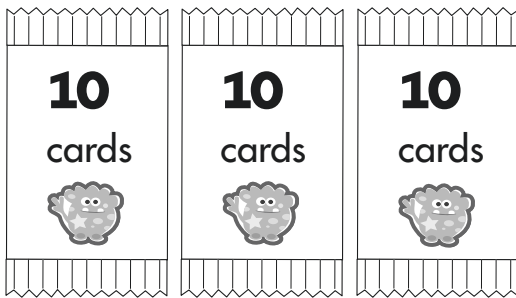
She adds **2 more tens**.

What is her **new** number?



1 mark

18

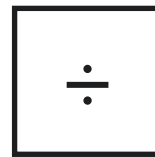
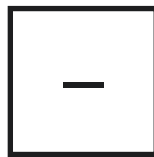
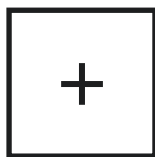
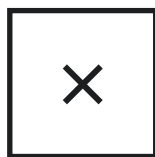
Ben has **26** cards.Sita has **32** cards.How many cards do Ben and Sita have **altogether**?
 A rectangular box with a blue border, intended for the student to write the total number of cards.

cards



1 mark

19 Look at these signs:



Write one sign in each box to make the number sentences correct.

One is done for you.

$$5 \boxed{\times} 4 = 20$$

$$8 \boxed{\phantom{\times}} 2 = 16$$

$$30 \boxed{\phantom{\times}} 10 = 3$$

$$7 \boxed{\phantom{\times}} 6 = 13$$



2 marks

20

Write the missing numbers to continue the number pattern.

$$7 + 3 = 10$$

$$17 + 3 = 20$$

$$\boxed{\phantom{00}} + 3 = 30$$

$$\boxed{\phantom{00}} + 3 = \boxed{\phantom{00}}$$

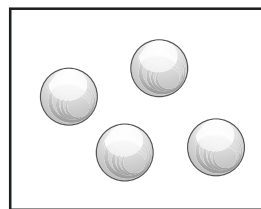
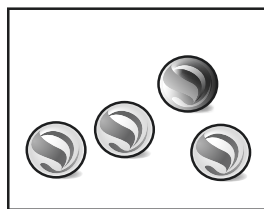
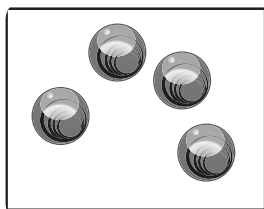
$$47 + 3 = 50$$



1 mark

21

These marbles are sorted into groups.



Circle **two** calculations that show the total number of marbles.

$$3 \times 3$$

$$3 \times 4$$

$$4 + 4 + 4$$

$$3 + 3 + 3$$



1 mark

22

Here is a calculation.

$$\frac{1}{4} \text{ of } 8 = \boxed{2}$$

Now complete the calculations below.

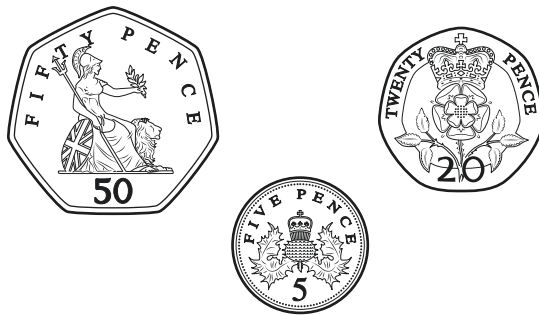
$$\frac{2}{4} \text{ of } 8 = \boxed{\phantom{00}}$$

$$\frac{3}{4} \text{ of } 8 = \boxed{\phantom{00}}$$



1 mark

**23** This is Ben's money.



This is Sita's money.



How much **more** money does Ben have than Sita?

p



1 mark

24 Sam has some toy cars.

The picture shows  $\frac{1}{2}$  of his cars.




How many toy cars does Sam have **altogether**?

cars



1 mark

25 Look at the two calculations.

Each  is worth the **same** number.

Write the answer to the second calculation.

$$\star + \star = \boxed{20}$$

$$\star \times \star = \boxed{\phantom{00}}$$



1 mark



26

Sam buys a book for **£17**

He pays with **four £5** notes.



How much change does Sam get?

£



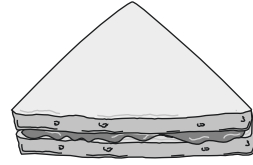
1 mark

**27** Amy makes **24** sandwiches for a party.

**9** children come to the party.

Each child eats **2** sandwiches.

How many sandwiches are **left**?



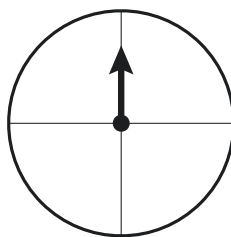
Show  
your  
working

sandwiches

2 marks

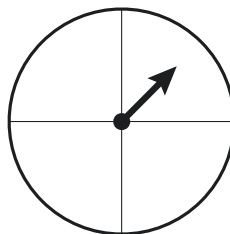
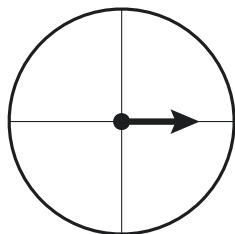
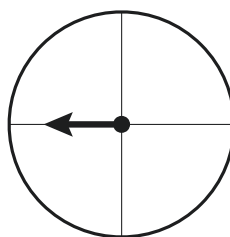
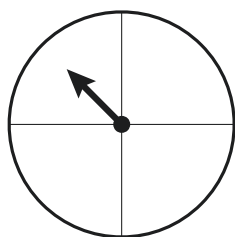
28

Here is a spinner.



The arrow moves a  $\frac{1}{4}$  turn **anti-clockwise**.

Tick the new position of the arrow.

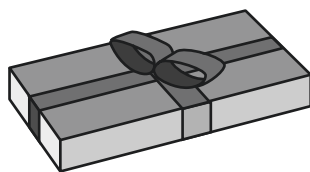


1 mark

29 Kemi sends a card, a gift and a letter.



card  
**32 g**



gift  
**47 g**



letter  
**? g**

Altogether the card, gift and letter weigh **100** grams.

How much does the **letter** weigh?

Show  
your  
working

grams



2 marks

30 Write a digit in each box to complete this number sentence.

$$\begin{array}{|c|c|} \hline 3 & \square \\ \hline \end{array} + \begin{array}{|c|c|} \hline \square & 2 \\ \hline \end{array} = 50$$

1 mark

31 Sita solved this calculation.

$$16 - 4 = 12$$

Circle **all** of the calculations that show how Sita could check her answer.

$$16 + 4$$

$$4 + 12$$

$$4 + 16$$

$$12 + 4$$

1 mark

**32** Here is part of a number pattern.

The numbers increase by **five** each time.

2      7      12      17      22

Write the next **even** number in the pattern.



1 mark

**End of test**

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Standards  
& Testing  
Agency

2023 key stage 1 mathematics

Paper 2: reasoning

Print version product code: STA/23/8708/p ISBN: 978-1-78957-622-1

Electronic PDF version product code: STA/23/8708/e ISBN: 978-1-78957-642-9

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