

2023 national curriculum tests

Key stage 1

Mathematics

Paper 2: reasoning

First name	
Middle name	
Last name	

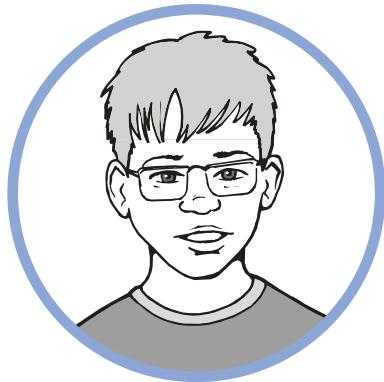
Total marks



Ajay



Amy



Ben



Kemi



Sam



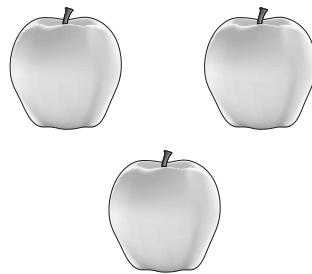
Sita

Practice question

Sita

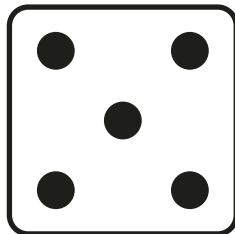


Amy



apples

1



5

3

2

7



1 mark

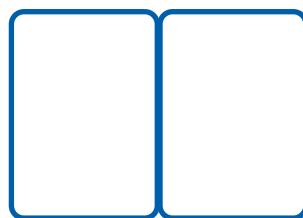
2

6

2

8

3



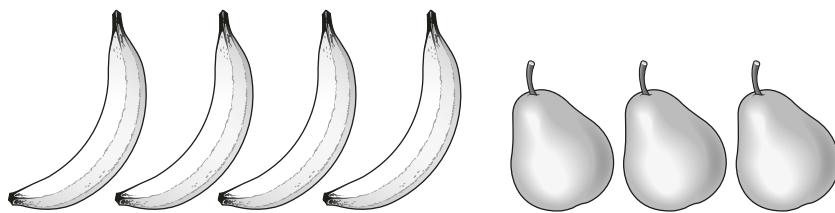
1 mark

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

43

forty-three

34



1 mark

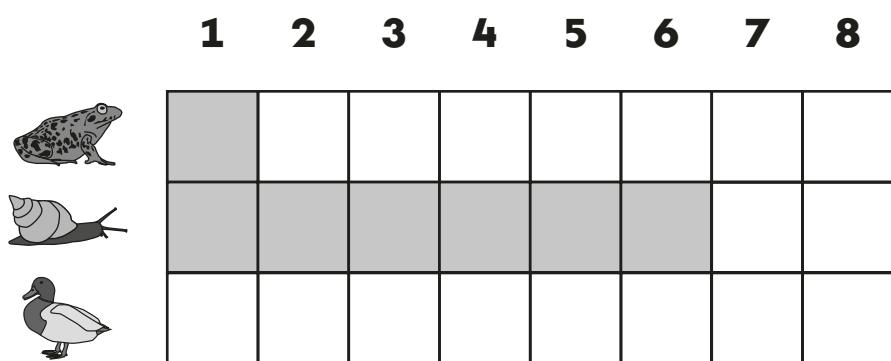
7

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

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



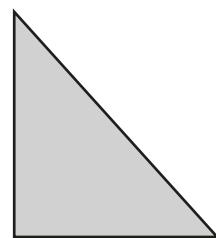
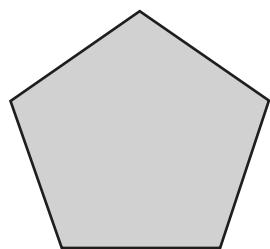
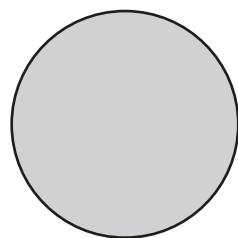
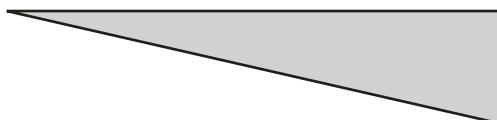
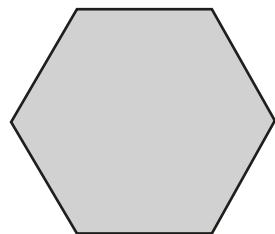
Complete the block chart.



1 mark

8

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



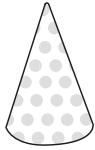
1 mark

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

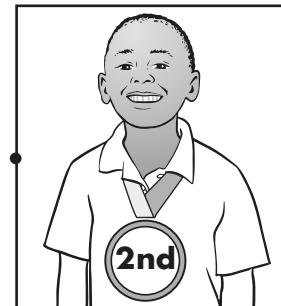
Four children run a race.

The medals show their finishing position.

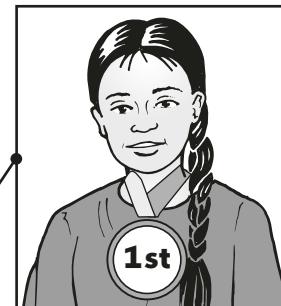
Match each time to the child's position.

One is done for you.

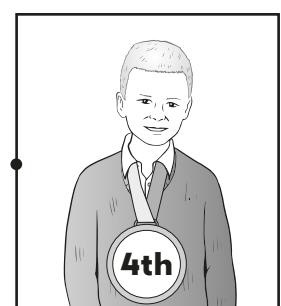
11 minutes



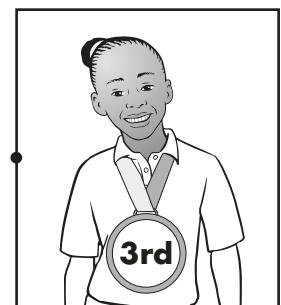
15 minutes



13 minutes



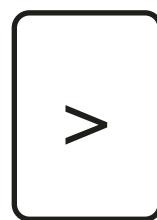
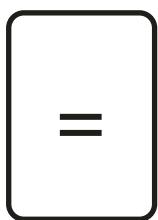
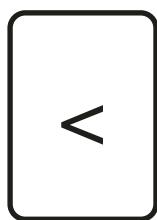
10 minutes



1 mark

11

Look at these signs.



Write the correct sign in each box.

21 12

48 64

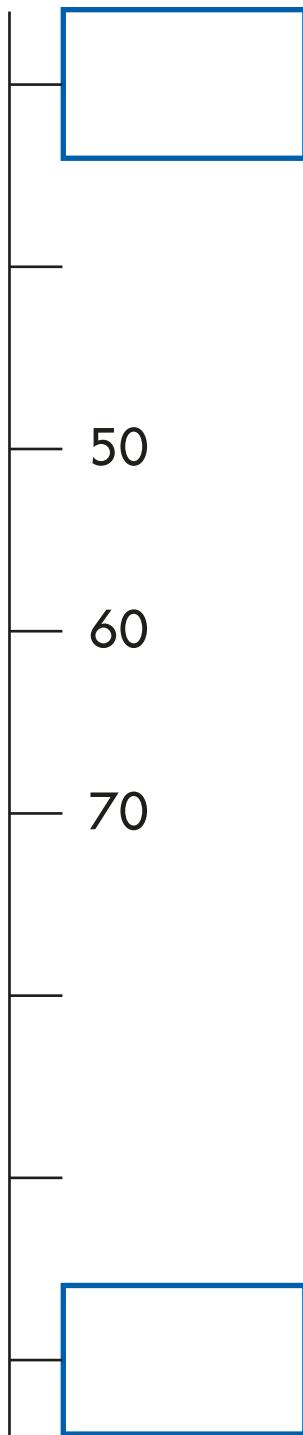
55 55



1 mark

12

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

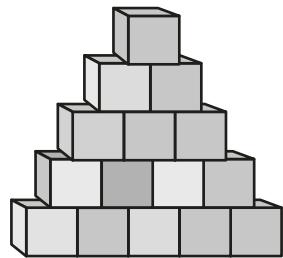


1 mark

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



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

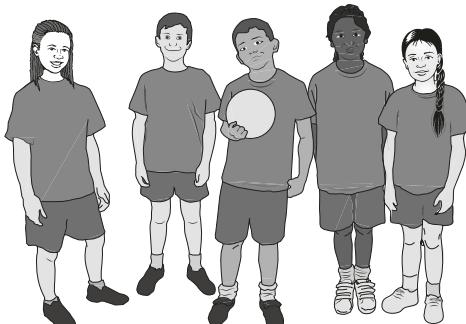


1 mark

16

6 teams play football.

Each team has 5 children.

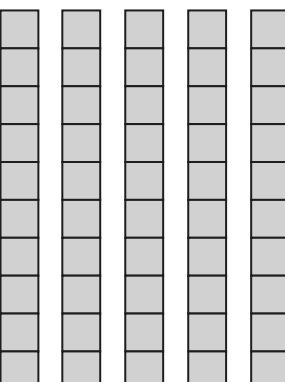
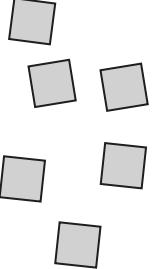


How many children play football **altogether**?

children



1 mark

tens	ones
 A grid of base ten blocks. The 'tens' column contains five vertical stacks of ten blocks each. The 'ones' column contains six individual blocks.	 A group of six individual base ten blocks.

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

She adds **2 more tens**.

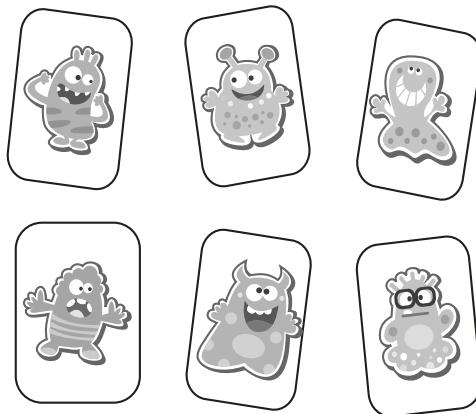
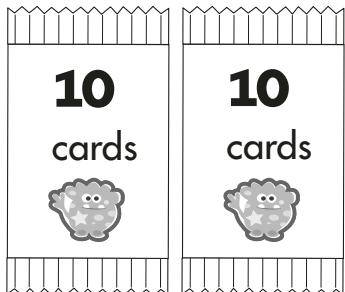
What is her **new** number?



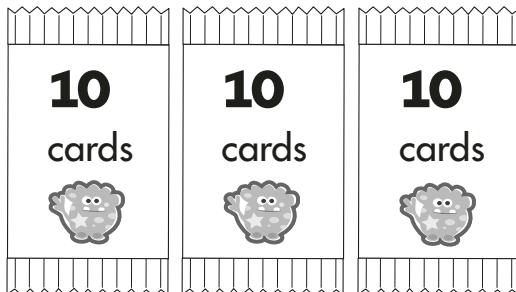
1 mark

18

Ben has **26** cards.



Sita has **32** cards.



How many cards do Ben and Sita have **altogether**?

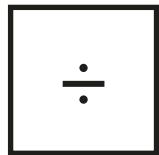
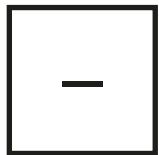
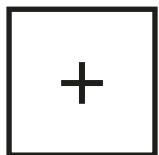
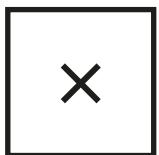
cards



1 mark

19

Look at these signs:



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

One is done for you.

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

$$8 \boxed{\quad} 2 = 16$$

$$30 \boxed{\quad} 10 = 3$$

$$7 \boxed{\quad} 6 = 13$$



2 marks

20

Write the missing numbers to continue the number pattern.

$$7 + 3 = 10$$

$$17 + 3 = 20$$

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

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

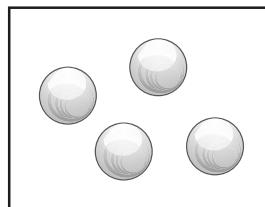
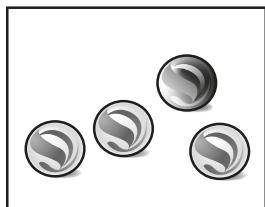
$$47 + 3 = 50$$



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.

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

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



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.

$$\star + \star =$$

 20

$$\star \times \star =$$



1 mark

26

Sam buys a book for **£17**

He pays with **four £5 notes**.



How much change does Sam get?

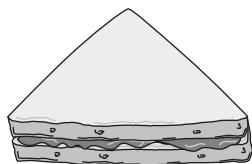
£



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**?

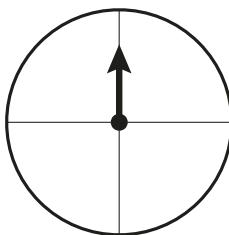
Show
your
working

sandwiches



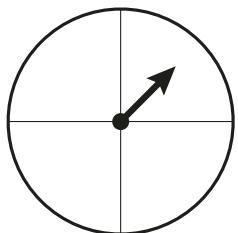
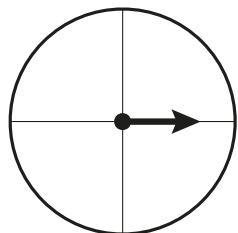
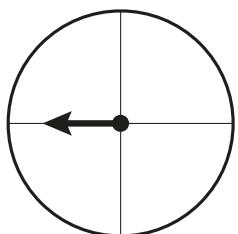
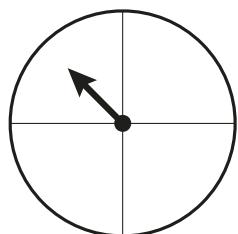
28

Here is a spinner.



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

Tick the new position of the arrow.



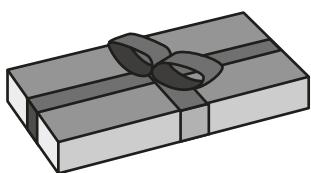
1 mark

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.

$$\boxed{3} \quad + \quad \boxed{} \quad \boxed{2} = 50$$



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

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