

2019 national curriculum tests

# Key stage 1

## Mathematics

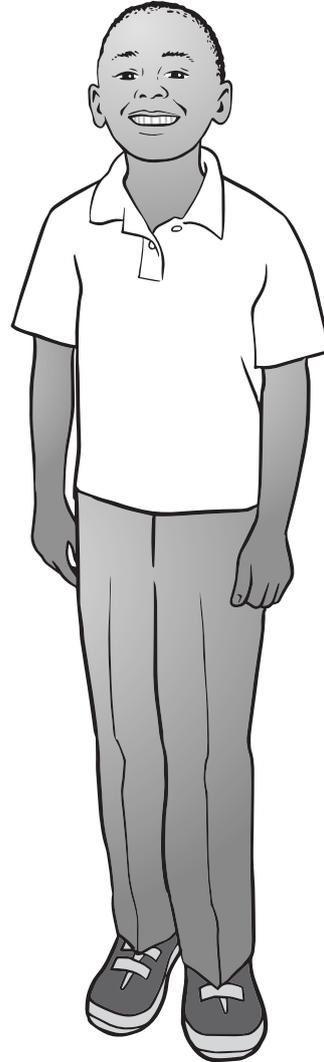
### Paper 2: reasoning

|             |  |
|-------------|--|
| First name  |  |
| Middle name |  |
| Last name   |  |

|             |  |
|-------------|--|
| Total marks |  |
|-------------|--|



**Amy**



**Ajay**

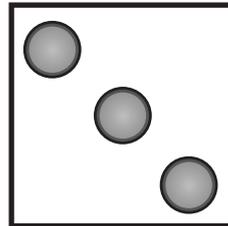
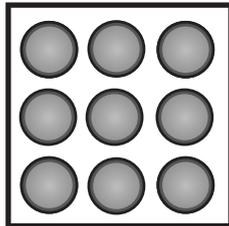
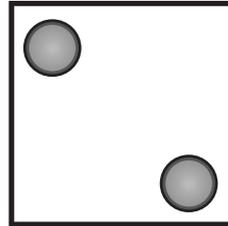
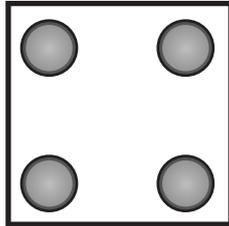
Ben

Sam

Sita

Kemi

## Practice question



1

Monday

Friday

Wednesday

Saturday



1 mark

2

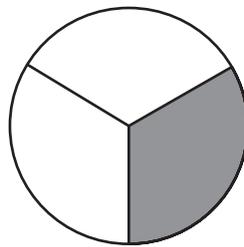
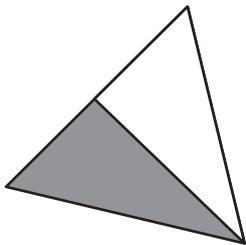
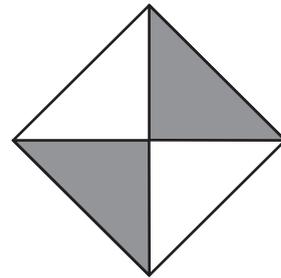
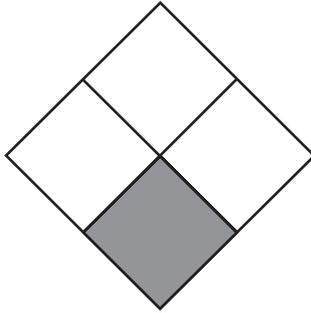
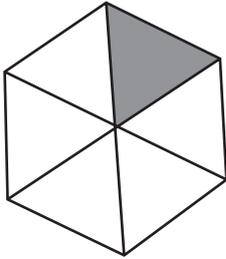
52

57



1 mark

3



  
1 mark

4

$$12 = \square \times 6$$

1 mark

5

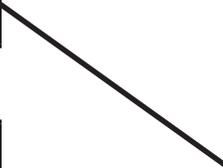
96

1 mark

6

Match each shape to the correct description.

One is done for you.

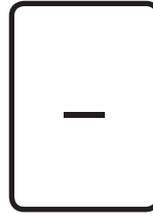
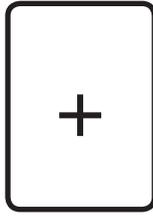
| shape    |   | description        |
|----------|---|--------------------|
| triangle |  | has 8 vertices     |
| square   |   | has 3 sides        |
| octagon  |   | has 4 right angles |
| circle   |   | has no vertices    |



1 mark

7

Here are two cards.



Choose a card to make each calculation correct.

One is done for you.

$$4 \quad \boxed{+} \quad 1 = 5$$

$$23 \quad \boxed{\phantom{+}} \quad 1 = 22$$

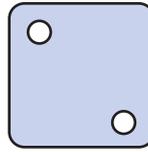
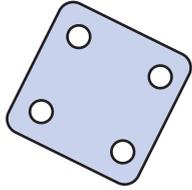
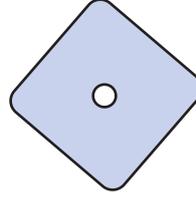
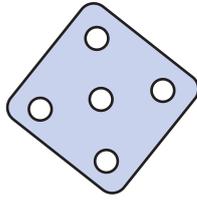
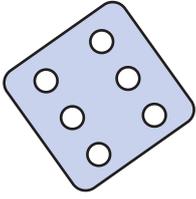
$$40 \quad \boxed{\phantom{+}} \quad 1 = 39$$

$$19 \quad \boxed{\phantom{+}} \quad 1 = 20$$

  
1 mark

8

Circle the **three** dice that add up to **13**

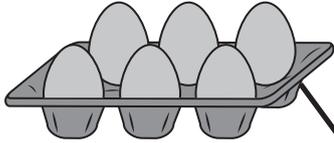


1 mark

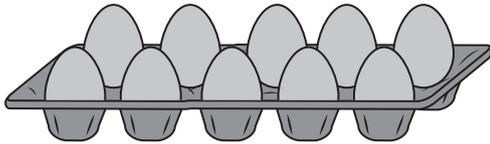
9

Match each egg box to the correct multiplication.

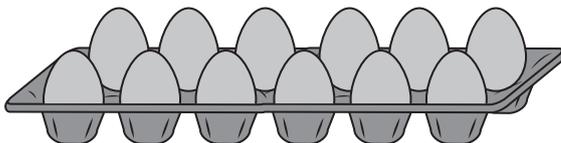
One is done for you.



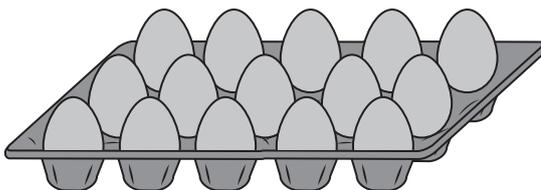
$$6 \times 2$$



$$5 \times 3$$



$$3 \times 2$$



$$5 \times 2$$

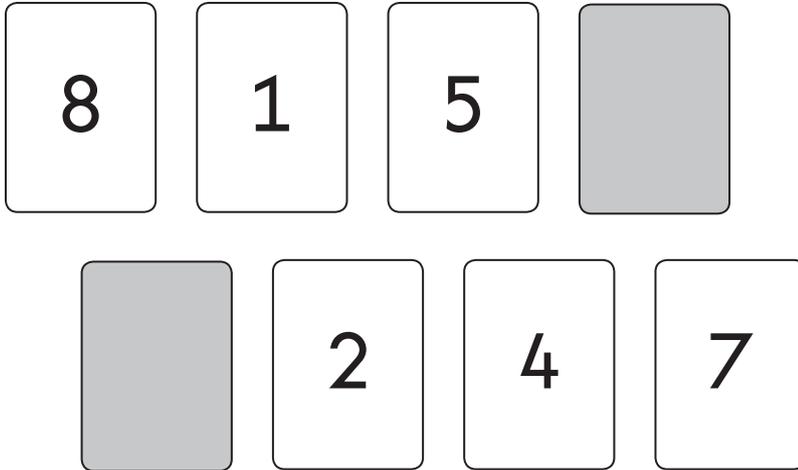


1 mark

10

Sam has cards that are numbered 1 to 8

Sam turns over two of the cards.



Which two cards has Sam turned over?

Write the numbers on the cards below.

Two empty rectangular boxes with blue borders, intended for the student to write the numbers of the two turned-over cards.

1 mark

**11** Complete the number sentences.

One is done for you.

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

$$\frac{1}{2} \text{ of } \boxed{\phantom{00}} = 3$$



1 mark

**12** Write the missing numbers in the sequence.

|    |    |    |                      |                      |                      |
|----|----|----|----------------------|----------------------|----------------------|
| 16 | 14 | 12 | <input type="text"/> | <input type="text"/> | <input type="text"/> |
|----|----|----|----------------------|----------------------|----------------------|



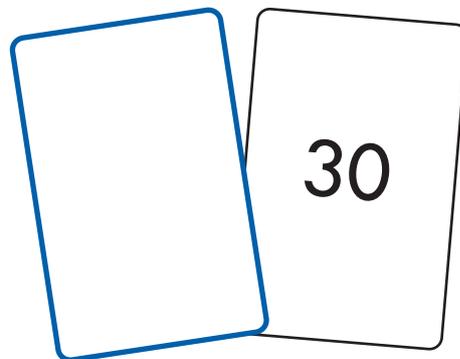
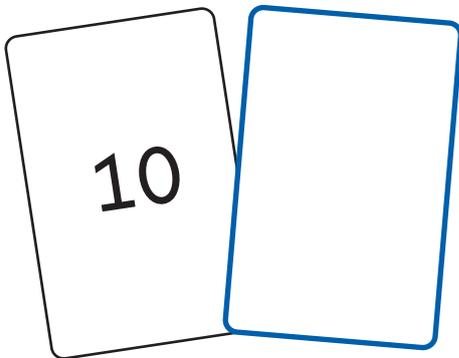
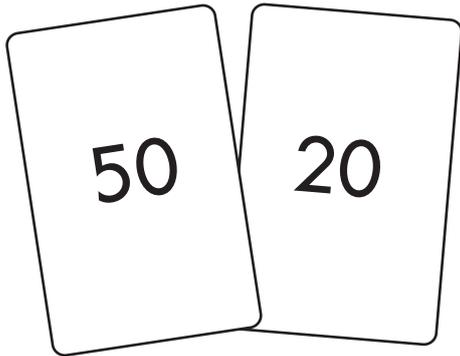
1 mark

13

Each pair of cards has a **total of 70**

Write numbers to complete the pairs.

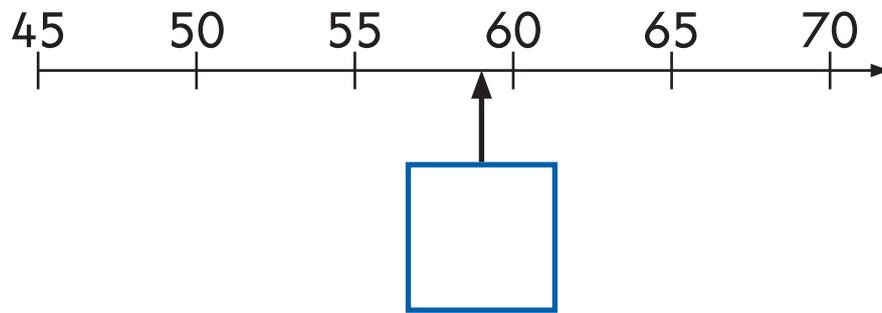
One is done for you.



1 mark

14

Write the correct number in the box.



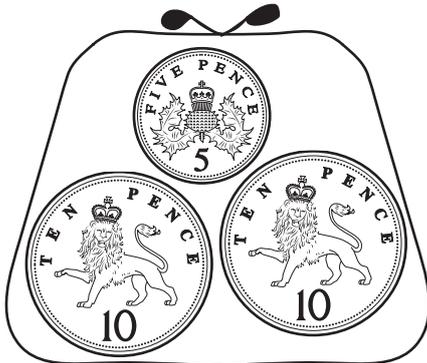
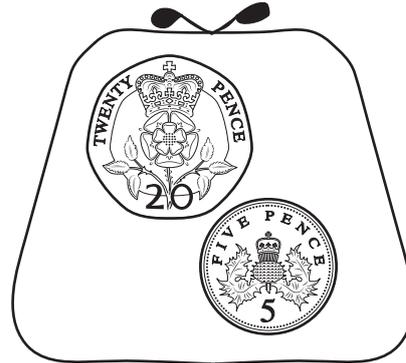
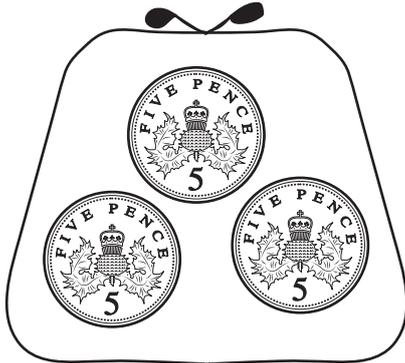
1 mark

15

Amy has 50p.

She buys a pencil for **30p**.

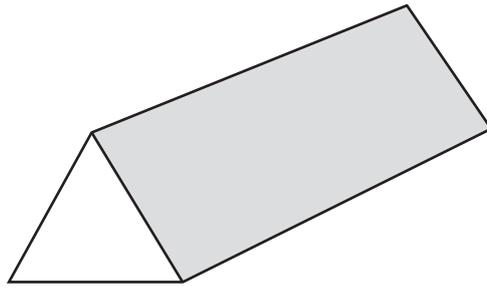
Tick the purse that shows how much money Amy has **left**.



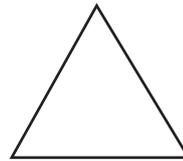
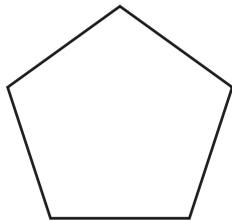
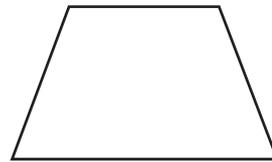
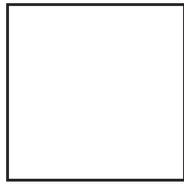
1 mark

16

Here is a prism.



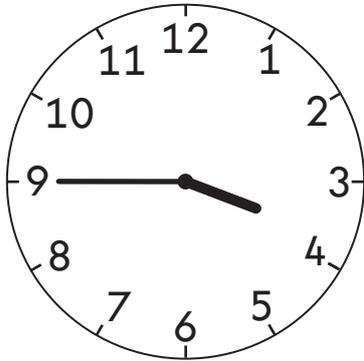
Tick **all** the shapes that are faces on this prism.



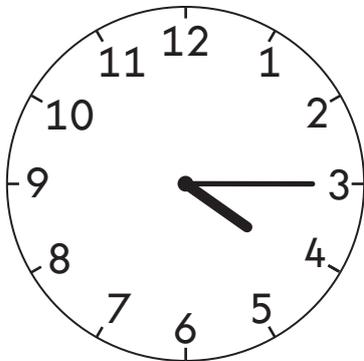
1 mark

17

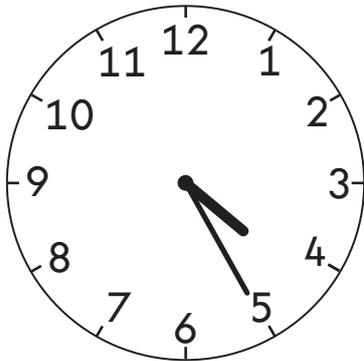
Match each clock to the time it shows.



twenty-five past four



quarter to four



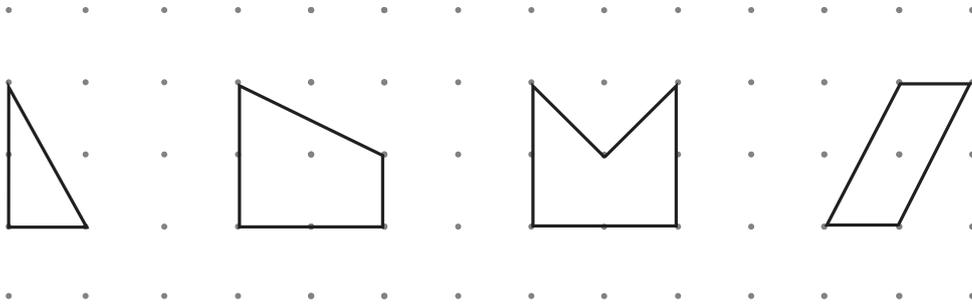
quarter past four



1 mark

**18**

Tick the shape that has a line of symmetry.



1 mark

**19**

Write the next number sentence in the pattern.

$$1 + 2 + 3 = 6$$

$$2 + 3 + 4 = 9$$

$$3 + 4 + 5 = 12$$

$$4 + 5 + 6 = 15$$

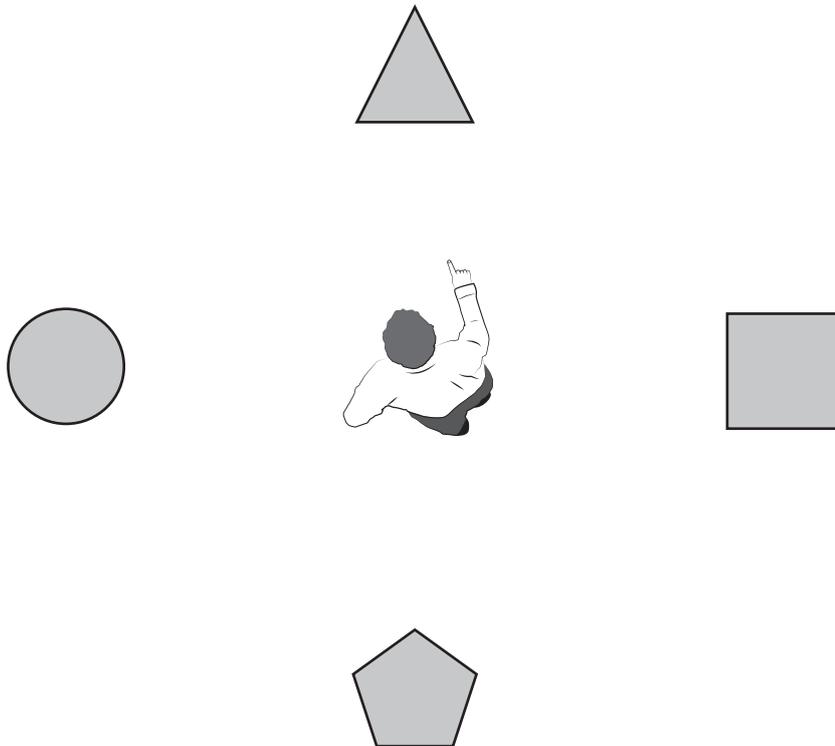
$$\square + \square + \square = \square$$



1 mark

20

Sam is pointing at the triangle.



He turns a **half turn**.

Tick the shape Sam is pointing at after the half turn.



1 mark

21

Sam has four number cards.

$$\boxed{10} \quad \boxed{20} \quad \boxed{30} \quad \boxed{40}$$

Use **three** of his cards to make these correct.

$$\boxed{27} + \boxed{\phantom{00}} = \boxed{67}$$

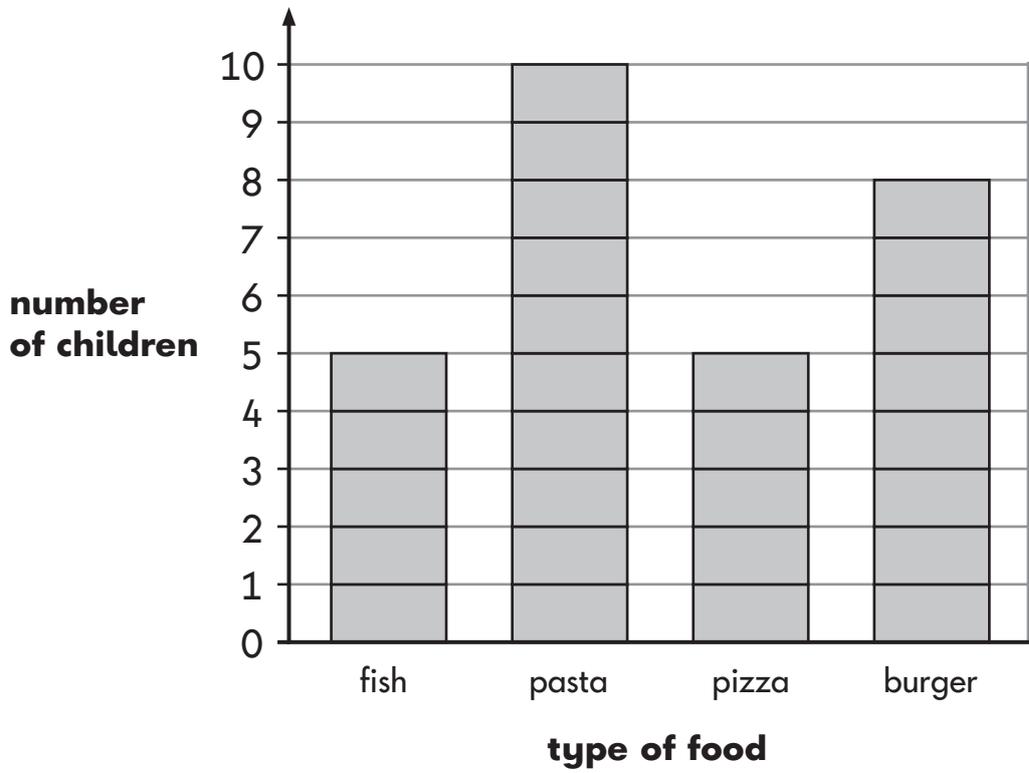
$$\boxed{54} - \boxed{\phantom{00}} = \boxed{34}$$

$$\boxed{\phantom{00}} + \boxed{88} = \boxed{98}$$

  
2 marks

22

This chart shows what class 2 ate for lunch today.



Fewer children ate pizza than burger.

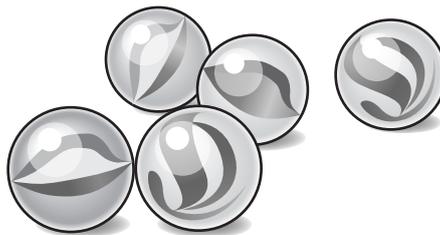
How many fewer?



1 mark

23

Ben has **five** marbles.



Kemi has **seven times** that number.

How many marbles does Kemi have?

marbles



1 mark

24

Sam plays a maths game.

Each  is equal to **2** points.

$$\text{leaf} + \text{acorn} + \text{acorn} = 10 \text{ points}$$

How many points is **one**  equal to?

1 mark

25

Write five coins that have a total of 37p.

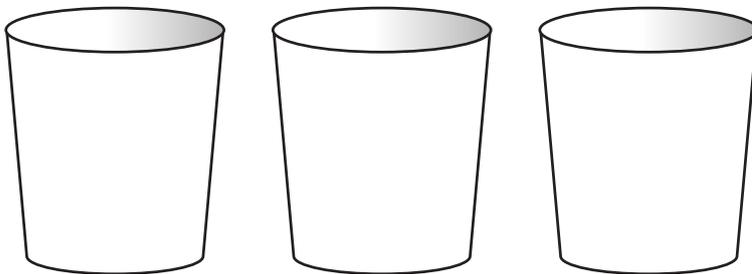


1 mark

26

Ajay has **30** pencils.

He shares them equally between **3** pots.



Complete the number sentence to show how Ajay shares the pencils.

$$\square \div \square = \square$$



1 mark

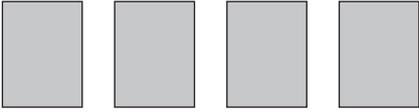
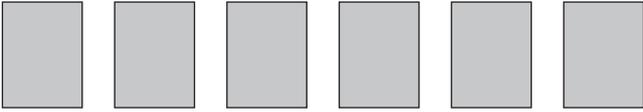
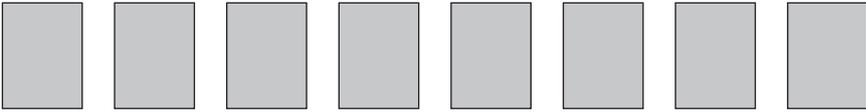
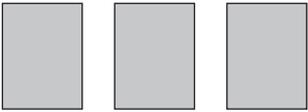
27

Some children make a chart of how many books they read in a week.

**Key:**



stands for **1** book

|             |   |
|-------------|---|
| <b>Ben</b>  |    |
| <b>Kemi</b> |   |
| <b>Ajay</b> |  |
| <b>Sita</b> |  |

Which children read **fewer than 5** books?

Circle them.

**Ben**

**Kemi**

**Ajay**

**Sita**



1 mark

28

Put a **digit** into each empty box to make the calculation correct.

$$\begin{array}{|c|c|} \hline 1 & \phantom{0} \\ \hline \end{array} + \begin{array}{|c|c|} \hline \phantom{0} & 3 \\ \hline \end{array} = \begin{array}{|c|c|} \hline 2 & 9 \\ \hline \end{array}$$



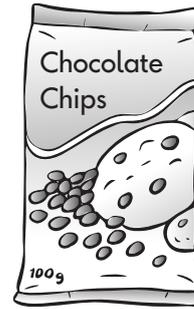
1 mark

29

There are **100g** of chocolate chips in the bag.

Sita uses **25g**.

Ben uses **35g**.



How many grams of chocolate chips are **left** in the bag?

Show  
your  
working

g

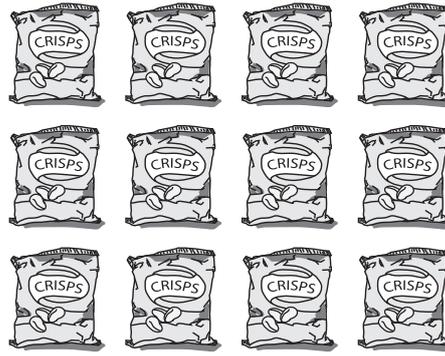
2 marks

30

A shop has 12 bags of crisps.

It sells  $\frac{1}{4}$  of the bags.

How many bags of crisps did the shop **sell**?



bags



1 mark

31

Ben has **63** beads.

He gives **37** beads away.

How many beads does Ben have **left**?

beads



1 mark

32

Ben has **90p**.

He buys **2** tickets.

Each ticket costs **35p**.

How much money does Ben have **left**?



Show  
your  
working

A large rectangular box for showing working. Inside the box, there is a smaller rectangular box with a blue border, containing the letter 'p' at the bottom right corner.

2 marks

End of test

**[BLANK PAGE]**

Please do not write on this page.



2019 key stage 1 mathematics

Paper 2: reasoning

Print version product code: STA/19/8208/p ISBN: 978-1-78957-004-5

Electronic PDF version product code: STA/19/8208/e ISBN: 978-1-78957-023-6

### **For more copies**

Additional printed copies of this booklet are not available. It can be downloaded from <https://ncatools.education.gov.uk> during May 2019, or afterwards from <https://www.gov.uk/government/collections/national-curriculum-assessments-practice-materials>.

© Crown copyright 2019

### **Re-use of Crown copyright in test materials**

Subject to the exceptions listed below, the test materials on this website are Crown copyright and you may re-use them (not including logos) free of charge in any format or medium in accordance with the terms of the Open Government Licence v3.0 which can be found on the National Archives website and accessed via the following link: [www.nationalarchives.gov.uk/doc/open-government-licence](http://www.nationalarchives.gov.uk/doc/open-government-licence). When you use this information under the Open Government Licence v3.0, you should include the following attribution: 'Contains material developed by the Standards and Testing Agency for 2019 national curriculum assessments and licensed under Open Government Licence v3.0' and where possible provide a link to the licence.



### **Exceptions – third-party copyright content in test materials**

You must obtain permission from the relevant copyright owners, as listed in the '2019 key stage 1 tests copyright report', for re-use of any third-party copyright content which we have identified in the test materials, as listed below. Alternatively, you should remove the unlicensed third-party copyright content and/or replace it with appropriately licensed material.

### **Third-party content**

These materials contain no third-party copyright content.

If you have any queries regarding these test materials, contact the national curriculum assessments helpline on 0300 303 3013 or email [assessments@education.gov.uk](mailto:assessments@education.gov.uk).